REPORT

OF THE

PROCEEDINGS

OF THE

Maternity and Child Welfare Conference

Held in the M'LELLAN GALLERIES

SAUCHIEHALL STREET

GLASGOW

Price 2/6 Net

Presented by

Dr. A. K. Chalmers, D.P.H.

June. 19 17.

Glasgow Conference

ON

Maternity and Child Welfare.

National Association for the Prevention of Infant Mortality and for the Welfare of Infancy.

CONFERENCE

ON

MATERNITY AND CHILD WELFARE.

GLASGOW, 13th and 14th MARCH, 1917.

The Midwives (Scotland) Act, 1915.
The Notification of Births (Extension) Act, 1915.

Conference held in the M'Lellan Galleries, 270 Sauchiehall Street, Glasgow.

Honorary President—
THE RIGHT HONOURABLE ROBERT MUNRO, K.C., M.P.,
Secretary for Scotland.

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PREFACE.

THE circumstances which led to the holding of a Conference on Child Welfare at a time when war threatens to engulf European civilisation are related in the following circular which was issued by the Corporation of Glasgow towards the close of 1916 :—

NATIONAL ASSOCIATION FOR THE PREVENTION OF INFANT MORTALITY AND FOR THE WELFARE OF INFANCY.

CITY CHAMBERS,
GLASGOW, *6th December, 1916.*

DEAR SIR,

MATERNITY AND CHILD WELFARE.

Under the auspices of the above Association the Corporation of the City of Glasgow propose to hold a Conference early in the ensuing year, on a date to be afterwards fixed, and which will be duly communicated to you, and they cordially invite your Authority (or Board or Association) to appoint representatives to represent your views thereat.

The Convention of Royal Burghs have already appointed a Committee to co-operate, and the Society of Medical Officers of Health of Scotland have promised to assist in the deliberations.

Recent legislation, and particularly the Midwives (Scotland) Act, and the Notification of Births (Extension) Act—both passed by Parliament as War Measures—has placed new and far-reaching responsibilities on Local Authorities, and widened enormously their field of action in questions affecting the health of mothers and young children.

In many of the large centres of population Voluntary Associations are already engaged in portions of this field, but many gaps require to be filled up, and the work of all co-ordinated.

In other districts, and in detached village communities, the work may still require to be organised, and it is hoped that the Conference will be the means of stimulating afresh the interest which Scotland has always shown in the welfare of its children, so that they may continue to maintain a leading place in the strenuous years which are to follow.

The appended grouping of subjects is suggested for discussion, but the Corporation invite further suggestions, and will be pleased if you will be good enough, when forwarding names of representatives, to indicate what branch of the discussion they desire to make a contribution to.

We are,

Your obedient Servants,

THOMAS DUNLOP,
Lord Provost.

TOM MONAHAN BOGLE,
Chairman of Child Welfare Committee.

J. LINDSAY,
Town-Clerk.

A. K. CHALMERS,
Medical Officer of Health.

Subjects Suggested for Discussion.

1. The scope of the Midwives (Scotland) Act, and of the Notification of Births (Extension) Act. The application of these Statutes in towns and smaller villages and rural areas.
2. Maternity and Child Welfare Centres, and their place as schools for mothers.
3. The place of Maternity and Sick Children's Hospitals and dispensaries, and of the general practitioner, in the scheme of medical relief.
4. The place of the Crèche, Kindergarten, and Country Home in the movement.
5. The problem of Home Visitation:—
   (*a*) Medical (a Municipal panel, or whole-time service);
   (*b*) Voluntary; and
   (*c*) Staff agencies.
6. A maternity service under the Notification of Births (Extension) Act.
7. The illegitimate child and its care.

The response to this invitation was most gratifying, and Bailie James Stewart (Townhead), Councillors T. M. Bogle (Convener of the Child Welfare Committee), E. M'Connell, M.D., James Erskine, M.A., M.B., James M'Dougall, Roderick Scott, and J. W. Stewart were appointed by the Child Welfare Committee to carry out the necessary arrangements.

The Right Hon. Robert Munro, K.C., M.P., His Majesty's Secretary of State for Scotland, accepted nomination as Hon. President of the Conference, and the meetings were held on 13th and 14th March, 1917.

Delegates, to the number of 151, were appointed by 58 Local Authorities, and representatives were present from the Local Government Boards of Scotland and Ireland, and also from the Central Midwives Board (Scotland), together with many members of Parish Councils, Education Authorities, and Voluntary Associations interested in Maternity and Child Welfare work. In all the appointed delegates numbered 323, while, owing to the widespread interest in the subjects discussed, the attendance at the meetings averaged about 400.

The discussions were well maintained throughout, and it was difficult to avoid the conclusion that the movement in favour of Child Welfare had received considerable stimulus.

J. LINDSAY.
A. K. CHALMERS.

Sanitary Chambers,
Glasgow, *May, 1917.*

SUBJECTS DISCUSSED.

1st Day—Morning Sitting.

I.—The Scope of the Midwives (Scotland) Act, and of the Notification of Births (Extension) Act. The Application of these Statutes in Towns and Smaller Villages and Rural Areas.

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Sub-Sections.	Introduced by
(1) The Midwives (Scotland) Act; its object and method.	Sir John Halliday Croom, M.D., F.R.C.P.(Edin.), F.R.S.E., Chairman, C.M.B. (Scotland).
(2) The Notification of Births (Extension) Act, and its scope.	W. Leslie Mackenzie, M.A., M.D., LL.D., F.R.C.P.E., Medical Member of L.G.B. (Scotland).
	E. W. Hope, M.D., D.Sc., M.O.H., Liverpool.
(*a*) The Application of the Statutes and Regulations; and	Mr. W. E. Whyte, District Clerk, Middle Ward of Lanarkshire.
(*b*) The Position of County Areas in the Formulation of Schemes.	Professor Munro Kerr, Glasgow.
(4) Its Application under Different Social Conditions.	Matthew Hay, M.D., Professor of Forensic Medicine and Public Health, University of Aberdeen, and M.O.H., Aberdeen.
(*a*) In towns where hospitals and other voluntary associations are already provided.	A. Maxwell Williamson, M.D., B.Sc., M.O.H., Edinburgh.
	Dr. Wm. Stewart Cook, M.O.H., Greenock.
(*b*) In country areas.	John T. Wilson, M.D., D.P.H., County and District M.O.H., Lanarkshire.
(*c*) In smaller towns where no institutional provision exists.	Mr. D. W. Kemp, Convention of Royal Burghs.

Luncheon in the City Chambers at 1.15 p.m. as Guests of the Lord Provost and Corporation of Glasgow.

Afternoon Sitting, 2.30 o'clock.

II.—The Place of Maternity and Sick Children's Hospitals and Dispensaries in the Scheme of Medical Relief.

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Sub-Sections.	Introduced by
(1) The Maternity Hospital in relation to Maternity Centres.	J. Haig Ferguson, M.D., F.R.C.P. (Edin.), F.R.C.S.(Edin.), F.R.S.E., Deputy Chairman, C.M.B. (Scotland).
	Professor Murdoch Cameron, Glasgow.
(*a*) The Causes of Still-birth.	Professor Munro Kerr, Glasgow.
(2) Hospitals for Sick Children.	Mr. C. K. Aitken, Chairman, Royal Hospital for Sick Children.
	Mr. R. F. Barclay, Honorary Secretary and Director, R.H.S.C., Glasgow.
(*a*) Special Wards for Malnutrition and Feeding Cases only.	Mrs. J. C. Johnston, M.D., Honorary Secretary, Edinburgh Infant Health Centres.
(*b*) The Causes of Infant Deaths.	Leonard Findlay, D.Sc., M.D., Phys. R.H.S.C., Glasgow.
	A. K. Chalmers, M.D., D.P.H.(Camb.), M.O.H., Glasgow.
	John C. M'Vail, LL.D., M.D., Depute Chairman, Scottish National Insurance Commission.

2nd Day—Morning Sitting, 10 o'clock.

III.—Maternity and Child Welfare Centres and their Place as Schools for Mothers. A Maternity Service under the Notification of Births (Extension) Act.

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Sub-Sections.	Introduced by
(1) The Maternity Centre and its relation to practising Midwives.	Lady Susan Gilmour, Member, C.M.B. (Scotland).
(2) The Infant Welfare Centre in Industrial Communities and the Milk Supply.	Judge Lindsay, Convener, Public Health Committee, Leith. Leonard Findlay, D.Sc., M.D., Phys. R.H.S.C., Glasgow.
(3) The Infant and Child Clinic. The varied requirements of small and large towns.	Harold Kerr, M.D., D.P.H.(Camb.), M.O.H., Newcastle. Miss Halford, Secretary, National Association for Prevention of Infantile Mortality and for the Welfare of Infancy. Dr. Isobel Thomson, Public Health Department, Glasgow. William Angus, M.D., D.P.H.(Camb.), M.O.H., Leeds. Sir Archibald Buchan-Hepburn, Chairman of the Association of County Councils of Scotland.
(4) Their function as elements in a school for mothers.	Mrs. Lorrain Smith, Edinburgh Infant Health Centre. Councillor Margaret Ashton, Manchester.
(5) Special instruction of teachers, senior scholars, and mothers in the care of children between infancy and school age. Co-operation with School Boards and the requirements of a Medical History Sheet for children reaching school age.	Mrs. Somerville, Scottish Federation of Mothers and Child Welfare Centres. Miss Bannatyne, Glasgow School Board. Mrs. Pickering, Govan School Board. Mr. J. Clark, Clerk, Glasgow School Board.

2nd Day—Morning Sitting, 12 o'clock.

IV.—The Place of the Creche, Kindergarten, and Country Home in the Movement.

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Sub-Sections.	Introduced by
(1) The Crèche.	Mr. Francis Henderson, Chairman, Glasgow Day Nurseries Association. Mrs. W. G. Black, President, Executive Committee, Glasgow Day Nurseries Association. Mrs. Andrew Eadie, Joint Convener, Hutchesontown Day Nursery and Training Centre. Rev. Buchanan Blake, B.D., Christian Social Union. William Robertson, M.D., D.P.H., M.O.H., Leith.

Sub-Sections.	Introduced by
(2) The Dinner-Table for Mothers and Milk Depot.	Mrs. Hope Gordon, Glasgow. Mrs. Gourlay, President, B.W.T.A., Glasgow. Councillor Clarice M'Nab, Leith.
The Kindergarten and Playground for Young Children.	Miss M. A. Hannan Watson, President, Kindergarten, Cowcaddens. Mrs. Leslie Mackenzie, Edinburgh,
(3) The Country and Convalescent Home.	Miss Rutherford, Warden, Queen Margaret Settlement, Glasgow. Mrs. Leslie Mackenzie, Edinburgh. Mr. R. F. Barclay, Secretary, R.H.S.C., Glasgow.

2nd Day—Afternoon Sitting, 2 o'clock.

V.—The Problem of Home Visitation.

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Sub-Sections.	Introduced by
(1) The relation of the General Practitioner to Welfare Centres, and the problem of home visitation.	A. K. Chalmers, M.D., D.P.H.(Camb.), M.O.H., Glasgow. Michael Dewar, M.D., Edinburgh, Member of C.M.B. (Scotland.)
Voluntary Agencies and District Nurses. The relationship between infant visiting and other elements in a scheme.	Dr. Drever, Secretary, Glasgow Burgh Local Medical Committee. Thomas G. Nasmyth, M.D., D.Sc., F.R.C.S.E., F.R.C.P.E., Representative of Queen Victoria Jubilee Institute for Nurses. Mrs. Cunningham, Glasgow Infant Health Visitors' Association. Mr. William Templeton, Chairman of Health Committee, Middle Ward of Lanark. Miss J. P. Watt, Superintendent, District Nursing Association, Motherwell.
(2) Voluntary and Staff Visitors—their training and qualifications.	Dr. Barbara Sutherland, Public Health Department, Glasgow.
(3) The problem as affected by home conditions.	Dr. Scurfield, M.O.H., Sheffield. Councillor John Barker, Newcastle-on-Tyne.
The child in a tuberculous family.	Mr. Motion, Inspector and Clerk, Glasgow Parish Council.

VI.—The Illegitimate Child and its Care.

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Subject.	Introduced by
The Illegitimate Child and its Care.	Mr. J. R. Motion, Glasgow. Rev. Buchanan Blake, B.D., Scottish Christian Social Union. Miss Lyall, Almoner, Royal Maternity Hospital, Glasgow.

ALPHABETICAL LIST OF SPEAKERS.

CONFERENCE

ON

MATERNITY AND CHILD WELFARE, GLASGOW.

OPENING MEETING.

The Lord Provost said—Ladies and gentlemen, on behalf of the Corporation and the citizens of the city of Glasgow, allow me to extend to you this morning a very, very hearty welcome indeed to our city. Your Conference, I hope, will be conducive to great good. I notice that you have many very interesting subjects to discuss, and never in the history of the country has it been more necessary for us, as a people, to realise what the war has vividly brought before us, the urgent necessity of preserving our child life. It is very sad to realise that the death-rate of young children is so very high indeed, and it is rather discreditable to our civilisation that we have not in the past tackled this subject with more earnestness of purpose than we have done in the past. It is very gratifying to know that you people are all interested in the subject, and I trust to-day that, after debating on those most interesting questions, something will come out of it. It is all very well to have meetings, discuss problems, and then do nothing. I hope that out of your Conference to-day something will be done, and that the valuable lives so useful to the nation at the present time will be preserved to us. I am sorry that I cannot possibly wait to hear your debate, because I just returned from London about an hour ago, and I have city business to attend to—it has been very well looked after in my absence, I understand—but I trust to see you at luncheon. Might I say that I am exceedingly sorry that Mr. Munro, the honorary president, is not here to-day; but I saw him yesterday, and I find

that he has written me a very interesting letter, which I will read to you—

"Scottish Office, Whitehall, S.W.,
"10th March, 1917.

"Dear Lord Provost,

"I much regret that my engagements here make it impossible for me to be present at the Conference on Maternity and Child Welfare over which you are to preside. The subjects which it is proposed to consider are matters of the highest national importance, and I feel sure that the deliberations of a gathering so representative of medical and administrative experience must prove to be of great value to all who are engaged in the child welfare movement. Will you kindly convey to the organisers of the Conference and to those who take part in it my appreciation of the value and importance of their efforts in this good cause, and my best wishes for the success of the Conference.

"Yours sincerely,
(Sgd.) "Robert Munro.

"The Right Hon. the Lord Provost of Glasgow."

(Applause.) I feel sure that in leaving you under the chairmanship of Mr. Broadbent, one of our English Mayors, who is with us to-day, I am leaving you in very good hands indeed, and I am sure he will conduct the business to the satisfaction of all. (Applause.)

Dr. A. K. Chalmers—Ladies and gentlemen, might I ask you to award the Lord Provost a hearty vote of thanks. (Applause.)

On taking the chair,

Mr. Alderman Broadbent, J.P. (Huddersfield, vice-chairman of the Executive Committee of the National Association), said—There are certain apologies, ladies and gentlemen, that should be read to this meeting from those who are unfortunately unable to be with us to-day.

Mr. J. L. Mackenzie (Town-clerk depute), then read a number of apologies for absence.

The Chairman—Although those whose names have just been read to us will not be actually present at this gathering, we know that we have their sympathy, and we know that we have their thorough support in the efforts we are making for the advancement of the cause we all have at heart. Now, the first item on the pro-

gramme is in relation to the Midwives of Scotland Act in Parliament. That, I am sure, will be very interesting to all of you, and to me also, to have explained. You have been long waiting in Scotland for this Act, which is now in operation, and I ask Dr. Ferguson to explain this Act to you.

Dr. Ferguson—I am sure we all regret very much indeed the absence of Sir Halliday Croom. He desired me to express his great regret at his inability to be present, and to explain that he was confined to bed with illness, and he asked me to read his paper.

1st Day—Morning Sitting.

I.—THE SCOPE OF THE MIDWIVES (SCOTLAND) ACT, AND OF THE NOTIFICATION OF BIRTHS (EXTENSION) ACT. THE APPLICATION OF THESE STATUTES IN TOWNS AND SMALLER VILLAGES AND RURAL AREAS.

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(1) THE MIDWIVES (SCOTLAND) ACT: ITS OBJECT AND METHOD.

By Sir JOHN HALLIDAY CROOM, M.D., F.R.C.P.Edin., F.R.C.S.Edin., F.R.S.E., Chairman, The Central Midwives' Board for Scotland.

It is with much pleasure that I lay before you a short précis of the work accomplished by the Central Midwives' Board for Scotland during its first year, which has just been completed.

Although the present Central Midwives' Board for Scotland is the outcome of the Act passed in December, 1915, yet it must be borne in mind that the necessity for the legislation of midwives was realised long before this. In the early days of the infantile mortality movement the Society of Medical Officers of Health, impressed as they were by the importance of the subject, realised the necessity for the control of midwives, and a bill was drafted. No one took a deeper interest in this than a member of our present Board, namely, Dr. Campbell Munro. The bill, however, fell through. Later on a bill was introduced by Lord Balfour of Burleigh in 1914, but was dropped in the House of Commons mainly for want of time at the end of a busy session. The Act of 23rd December, 1915, owes its origin to a memorial signed by the Deans of the Medical Faculties of the Universities, the Presidents of the Royal Medical Corporations, and the Medical Officers of the Maternity Hospitals in Scotland. In pressing the claims of the bill the memorialists realised the striking

change that had occurred in England after the passing of the Midwives Act, the mortality from sepsis having fallen very materially.

The memorial was presented to the Secretary for Scotland and the Lord President of the Privy Council, pointing out that a Midwives Act for Scotland had been long overdue, and that the situation at present was a very grave one, in so far as a large number of medical practitioners throughout Scotland had been called away for war service, and that it was impossible for those who were left to overtake all the attendance on midwifery cases that was necessary. Under such circumstances a large amount of midwifery practice would therefore, of necessity, fall into the hands of midwives and unqualified women. Hitherto these women had been under no control whatever, and had been practically a "law unto themselves," and until now no official or medical supervision, such as obtains in England, was applicable in Scotland. It was further pointed out in favour of taking immediate action that the Notification of Births Act was by special legislation made applicable to the whole country in order to meet a national emergency arising out of war conditions, and that this measure would fail of its full beneficial effect in Scotland unless it was supplemented by a Midwives Act.

On the 18th February, 1916, the Board was duly constituted, with the exception of two members, representatives of the midwives, to be appointed by the President of the Privy Council when a sufficient number of midwives had been enrolled.

On the 19th April the Order of the Privy Council approving of the rules prepared for the institution of the roll was received, and steps were accordingly taken to intimate that the roll was open. The rules for the supervision of midwives were not finally adjusted until the two representatives from the midwives were appointed, and after a sufficient number had been enrolled the President of the Council made the necessary appointments.

There was further delay in adjusting the rules, because it was of importance that they should conform in the main with the rules required for the curriculum, &c., for England.

In dealing with the applications for admission to the roll it was obvious that all those women who had practised midwifery previous to the passing of this Act were entitled to be placed on the roll provided they could give satisfactory evidence of at least a year's experience, and of moral character. These were called *bona fide* nurses. They were placed on the roll without any further examination at all, on the same principle as those practising dental surgery

were admitted on the passing of the Dental Act. Again, those producing certificates from recognised institutions, like the maternity hospitals, were admitted, and, lastly, of course, those who were qualified by passing the Central Midwives' Board examination.

It was represented to the Board that there was considerable hardship to a large number of persons who had obtained certificates in good faith from institutions which were not specified in the Act, and it was determined that an opportunity should be given to these persons, on being properly signed up, to appear at the first two examinations of the Board.

The first examination of the Board was held on 30th October, 1916, when seventy-seven candidates presented themselves, and I am glad to say they made a most creditable appearance. The examinations were thorough, comprising an oral, written, and practical examination. Of the seventy-seven, sixty-nine passed.

It is interesting and encouraging to point out that one-third of the candidates had been already enrolled as being in *bona fide* practice, and it is immensely to their credit that they wished and succeeded in adding to their qualification by gaining admission to the roll "by examination."

The Central Midwives' Board for England had intimated that, after 31st March, 1917, they proposed to remove from their training list all institutions and persons recognised in Scotland. This intimation was sent to all the institutions and teachers so affected, and applications for recognition were invited to be lodged with the Scottish Board.

The Board had resolved to recognise the maternity hospitals, the approval of such institutions carrying with it the approval of their proper officers; but these latter are only approved so long as they remain attached to the institution. Other institutions had applied and been reported upon by members of the Board.

Dealing with such applications the Board fixed a minimum in regard to staff, number of cases, number of beds available for teaching purposes, and number of pupils to be taught. This had eliminated a number of the bodies non-specified in the Act who could not come up to the requirements.

The most important point as differing from the practice of the English Board is that recognition will not be accorded to individual teachers unless they are connected with an institution approved by the Board. This prohibits the practice of individuals using an institution under a benevolent ægis for private gain.

The Board realise that in country districts especially it will be necessary sometimes to approve the best individual teacher available, though not attached, but such teachers will not be available for the tuition of women requiring the full curriculum. Such an arrangement will only apply in cases where the woman requires to complete a number of her cases and is exempt from the full curriculum, such as a nurse who has had three years' training in a general hospital, or in a poor law institution, or is enrolled as a Queen's nurse.

The Board has not been long enough in existence yet to have had recourse to its penal power, but these are adequate.

With regard to this, there is one point of regret, namely, that the qualifying words "habitually and for gain," which was a distinct flaw in the English Act, is perpetuated in the Scottish one, but we have good reason to believe that had the abolition of these words been insisted upon the Act would not have passed.

Under the Scottish Act it will be noted that the Board has powers to suspend a midwife in lieu of striking her name off the roll, and also to suspend her, pending the decision of a penal case; further, for the local supervising authority which takes proceedings against a midwife either before a Court of justice or the Board, to suspend her from practice until the case has been decided.

Section 7 provides power for the Board if they think fit to pay the expenses of any midwife who may be required to appear before them in her own defence. This power could be exercised where charges proved to be frivolous or ill-founded.

Under section 8 the Board is empowered to prohibit any midwife removed from the roll from attending women in childbirth in any capacity (even as a monthly nurse).

One of the most interesting points about our Central Midwives' Board, and one which has to be acknowledged with great pleasure, is the courtesy and sympathetic treatment it has always received at the hands of the Chairman and Secretary of the Central Midwives' Board for England.

In its present constitution the English Board has no powers for entire reciprocity. Our Board, however, is in a position until the end of this year to enrol midwives who have passed the examination of the English Board, and who desire to practise in Scotland. On the other hand, midwives passing our examination cannot be enrolled in England to practise there without passing the examination of the English Board until it obtains an amending Act. The Boards, however, have come to a reciprocal arrangement in regard to the

recognition of curriculum taught in the different countries. It has been arranged that midwives receiving their training at recognised institutions may enter for the examination in England, on their schedule being countersigned by the Secretary for the Central Midwives' Board, Scotland. The same applies to midwives who have been trained in England and who desire to appear for the examination of the Central Midwives' Board for Scotland.

Section 11 provides for the reciprocal treatment of midwives certified and enrolled in other parts of His Majesty's dominions, provided that the standard of training and examination are sufficient.

The Board has encountered a good deal of difficulty and responsibility in settling those institutions which are to be recognised, and rejecting some that do not come up to the standard.

I may take this opportunity of mentioning that the finances of the Board are excellent. Under section 13 the amount to be paid by each district is in proportion to the population of the district, and not, as under the English Act, to be paid by each district in proportion to the number of midwives who have given notice of their intention to practise therein.

It is most satisfactory to know that the whole work of the Board has been initiated under very satisfactory financial conditions, and that there is a substantial balance carried over to next year without requiring any levy whatever on the supervising authorities, and I may also add that, should matters turn out as estimated, it is not likely that any levy will fall to be made at the end of this year. If the present year is any augury of the years to come, the Central Midwives' Board for Scotland has every prospect of a very useful future.

There are many details which the limits of time prevent me entering upon, but it is satisfactory to know that before the close of the roll which takes place on the 31st March I fully expect the number of midwives enrolled will exceed 2000.

It is a great pleasure to me to be able to say that the members of the Board have enthusiastically entered into their work, and that the numerous committees and sub-committees have with the utmost devotion and care performed their duties. I think the Scottish Board is to be congratulated on the cordial and harmonious manner it has worked since its inception a year ago.

The CHAIRMAN (Mr. Alderman Broadbent, J.P., Huddersfield)—Ladies and gentlemen, the subject which has been so exceedingly lucidly put before us is now open for either question or discussion, if

there is any point left obscure in the constitution and working of the Scottish Midwives' Board. We think it is advisable that we should give an opportunity for question or discussion for a short period. In view of the large number of speakers we have on our list it would be well if we can avoid all waste of time, which will be very precious at the end of this meeting, so we must not waste it now. If there is any question or any comment or any discussion now is the opportunity upon this exceedingly interesting and lucid exposition of the new Act of Parliament. I can well understand that it may not be considered,. after so short an experience of its working, that there is any opportunity or call for particular comments, but you will be able by experience to learn more and be able to question better in regard to this particular measure. Now, the next subject for our consideration is the Notification of Births (Extension) Act, which will be explained by Dr. W. Leslie Mackenzie. If you will allow me, I should like to introduce this particular topic by relating a little of my own experience in regard to this particular Act of Parliament. May I say that it may also, I hope, serve to excuse somewhat my appearance here on this platform in the great city of Glasgow, coming from an obscure corner of Yorkshire and taking the chair at such an important gathering as this. I assure you that my feelings at taking the chair when there are so many eminent medical men and so many people who have far more knowledge and a far deeper insight into this question than I myself can pretend to have—I assure you that all my feelings of modesty are excited to the utmost degree when I think of the temerity with which I consented to preside at the meeting for one session at such a gathering as this. But I do know something about the inception of the Notification of Births Act, and it is perhaps the one subject on which I might throw a little light, even in a gathering of this description. My knowledge was gained by my own experience in the town of Huddersfield when I first took part in the work of saving infant life. The problem that was most forcibly brought to my own mind at that time was when I endeavoured to save the life of the babies I found that I could gain no knowledge whatsoever of the birth of the children until very often they were untimely dead. The period of *registration*, of course, is forty-two days, and very often the birth and death were registered at the same period of time. The mother or father of the child said they waited until the end of the forty-two days' period to see if they could not register both the birth and the death at one journey, so I found that the

babies were dead without any chance of saving them, and this to me was one of the most distressing features of the whole problem. You all know that babies die much more frequently in the early weeks and months of life than they do at a later period, and if you can tide them over the first few dangerous days and weeks you can probably tide them over until they are seventy years of age, we may say. But this want of knowledge was at an extremely dangerous period, and I found it so. The remedy that suggested itself was that a small reward should be paid for the earlier notification of births. The modest sum of one shilling was offered to all fathers and mothers, or even strangers, or anybody, who would within three days bring to the health officer notice of the birth of a baby. On doing so they were to be rewarded with the gift of one shilling. That voluntary system of notification was carried on with a certain amount of success for a period of twelve months, but it was quite insufficient—totally insufficient. The very births we wanted most to know about were the very ones that we never heard about—those of the babies who died before they were forty-two days old. So it came to the mind of Dr. S. G. Moore, the medical officer of health, and myself (we were at that time trying to get a miscellaneous Act of Parliament for the town of Huddersfield) that we would introduce into the bill a modest clause which would render it compulsory under a penalty in the town of Huddersfield, and in that town alone, to give notice of the birth of every child within three days to the medical officer of health. It was a new idea and a new clause altogether, and I found—I was Mayor at the time, and the Mayor has a certain amount of initiative allowed him even in this free country of ours, England—I found that my town clerk and my legal advisers in London, and everybody else, said that it was perfectly useless to attempt to introduce a clause of this description, which created a new crime, and was an absolutely new thing, never heard of before, and I was told that it was quite useless to put such a clause in the bill. In fact, in the matter of drafting the clause and putting it into shape, our legal advisers threw up the sponge, so to speak, and it was left to the medical officer of health to draw up the clause. However, by my position as Mayor I insisted that the clause should go in at all hazards. This notification of births clause was to be in the bill, whatever else was in the bill or out of the bill. The clause with regard to the compulsory notification of births was put into the bill; I got my way so far—when once I had got the clause into the bill I found that suddenly, on the part of our Parliamentary

agents and everybody concerned, there was a *volte face* altogether. Instead of being any longer opposed, I found that the idea of getting a new power was charming to our Parliamentary agents, and they were as zealous and as eager and as enthusiastic about it—well, not as I was myself, because that was impossible, but still they became quite eager and zealous in regard to this particular clause. So we took it to the Committee of the House of Commons, and it was a delightful experience going through that Committee, because when they once started the thing and got it afloat the idea seemed to catch on, and one saw that gradually the minds of the Committee, particularly the chairman, were coming round to our side—in fact, we felt certain that the clause would pass the House of Commons Committee. And it did pass with a considerable degree of facility. The chairman of the Committee was exceedingly kind, and said all manner of nice things about our little clause; he said that we had introduced it in quite a proper way, and it was exactly the way the House of Commons liked to be treated. But there was the House of Lords. What were we to do in the House of Lords? By that time our bill had become an unopposed bill, and the only person in the House of Lords who could say anything about the clause was the Lord Chairman of Committees. The Lord Chairman of Committees seemed to me at that time to be the absolute tyrant of the whole country; I could see nothing in front of me but our poor little clause coming beneath the eyes of this ferocious individual, who would be sure to cut it out. However, I used all the engineering powers I could. I got at the Lord Chairman of Committees' private secretary, and had a long talk with him, and I really enthused him. When it was fully explained to him he also became zealous for the little clause. When we went before the Chairman of the House of Lords Committee we were treated just like a set of schoolboys; many of you probably know how by experience. We stood in front of his lordship like a set of sixth-form boys who are to receive the reprimand from the headmaster. Lord Onslow was the chairman then, a real good old sportsman. He went through our bill, and he came finally, near the end, to our little clause of notification of births. You may be quite sure I was very, very eagerly listening and watching to see that he by no means struck this clause out. However, he came to the clause, and I saw him whispering to his private secretary, they had a confabulation, and I saw from the private secretary's eye that the thing was going all right, and by and by I heard Lord Onslow say to him, "Oh, yes—ah—eh—this is

a new hare that Huddersfield has started. I suppose we must let it run." So the early notification of births clause in our Act of Parliament went through. It was tried in Huddersfield for twelve months. It was found to work so well that in the following year the first Notification of Births Act was passed as an adoptive Act. This adoptive Act was brought into operation very generally only a couple of years ago, and the early Notification of Births (Extension) Act became a compulsory law throughout the United Kingdom and Ireland. That is the little contribution I can make to the consideration of the Early Notification of Births Act. I make this plea as my excuse for being here this morning, that I did a little bit to influence legislation, and I was never more conceited in my life than when I was told by a Minister in the Cabinet, "You have influenced legislation." I felt I was expanding out until my head touched the stars, like the poet of old. (Applause.)

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(2) THE NOTIFICATION OF BIRTHS (EXTENSION) ACT, AND ITS SCOPE.

By W. LESLIE MACKENZIE, M.A., M.D., LL.D., F.R.C.P.E., F.R.S.E., Medical Member of the Local Government Board for Scotland.

1. The Notification of Births Act, 1907, was an adoptive Act. In the course of some seven or eight years it had been adopted by local authorities representing over 60 per cent. of the population of Scotland. Its adoption had, in many cases, been followed by the appointment of health visitors, both official and voluntary. The essential points of the Act were that when a birth took place an obligation was placed on the father of the child, if residing in the house where the birth took place at the time of its occurrence, or on any person attending on the mother at the time of the birth, or within six hours after, to notify the birth to the medical officer of health of the district. The notification had to be made within thirty-six hours after the birth. The notification applied to any child born after the expiration of the twenty-eighth week of pregnancy, whether alive or dead.

2. The accumulated experience of seven years resulted in the passing of the Notification of Births (Extension) Act, 1915. The obligation to notify and the penalty for not notifying remain the same; but the 1915 Act makes notification obligatory over the whole of Scotland. This was one of the primary purposes of the 1915 Act.

Incidentally it may be said that in several areas the medical officers of health have complained that only a certain percentage of the births are notified. The percentage of notified births has, however, tended slowly upwards. Before approving a child welfare scheme the Local Government Board satisfy themselves that the notification of births is well carried out in the district. Notification is the first condition of prompt and systematic action by the Public Health Department.

3. But the 1915 Act contained another clause of a very comprehensive kind—

> "Any local authority within the meaning of the principal Act may make such arrangements as they think fit, and as may be sanctioned by the Local Government Board for Scotland, for attending to the health of expectant mothers and nursing mothers, and of children under five years of age, within the meaning of section seven of the Education (Scotland) Act, 1908."

4. With the new powers conferred on local authorities by the Notification of Births (Extension) Act, 1915, we make a new departure, both in principle and in practice. In principle, the local authorities have hitherto considered themselves as fulfilling their whole duty when they dealt with the general conditions of health and the special effects of infectious diseases. Even under the Public Health (Scotland) Act as it stands this is too narrow an interpretation, and, under the Housing Acts, it is much too narrow; for, as the powers of the Public Health Act are more closely studied, they are found to cover endemic diseases as well as infectious diseases. But the new Act of 1915 removes all possibility of doubt as to the scope of the local authorities' powers. In principle these are no longer governed by questions of infection or disease; they are governed solely by the need for preserving the health of expectant mothers, nursing mothers, and children up to the age of five. In practice the difference is also very great; for hitherto the institutions required of local authorities have practically been limited to hospitals for infectious diseases, including tuberculosis. Under the new powers, the institutions required are those arising out of the special needs of expectant mothers, nursing mothers, and children under five.

5. To assist the local authorities in the realisation of those very comprehensive powers, the Local Government Board has issued a memorandum expounding the general principles on which schemes

should be framed, indicating broadly the main elements of a child welfare scheme, and specifying what activities under the scheme will entitle the local authority to a grant equivalent to 50 per cent. of their approved outlays. Under a scheme it is open to the local authority to arrange maternity centres where expectant mothers and nursing mothers may come for medical advice and treatment; to establish a system of home visitation by health visitors or doctors; to arrange that skilled and prompt attention shall be ensured to every mother requiring it; that hospital accommodation shall be available for dangerous or difficult cases; that schools for mothers and young women may be established in co-operation with the School Boards or Secondary Education Committees. The local authority may also establish consultation centres, where children up to the age of five may be brought for medical advice and treatment, and from which they may be visited. They may provide or arrange for hospital accommodation for sick children when satisfactory treatment is impossible at home; for convalescent homes for children in impaired health; for day nurseries or nursery schools wherever these are practicable, and that means in almost every village. They are now, by statute, in a position to prepare such a report of each child as will enable the local authority, through its medical officer of health, to furnish every child of school age with a certified health schedule for presentation on admission to school. Briefly, the local authority is now able to apply public funds in the provision of organised care for the mother throughout her periods of expectancy and nursing, and of the child until it passes from the home to the school.

In some of these services the local authority receive Government grants to the extent of half of the outlays. The grants are administered by the Local Government Board for Scotland under the regulations laid down by the Lords Commissioners of His Majesty's Treasury. No grants are given directly to any institution. The local authority must first contribute.

6. The substance of the statutory powers, the methods of their administrative realisation, and the conditions under which grants may be earned are fully set forth in the circular and memoranda issued by the Local Government Board. As these documents are available to the public, it is not necessary to give a more elaborate summary. But as the schemes include not only the infants under one, but also children from one to five, it is very important that the record of ailments or experiences should be continuous from the

infant stage to the school entrant stage. Towards this end it has been suggested that a correlating schedule should be prepared. In the documents circulated I append for discussion a specimen correlating schedule, which is designed to furnish at entrance to school all the relevant details of the child's previous health history. Such a schedule may be elaborated to a much greater extent than the schedule now submitted; but the extent of the elaboration is a matter, first, for discussion and, next, for testing by experiment.

7. *Conclusion.*—Briefly, we are now in a position to say that the whole period from before birth to the end of the school age has, in form at least, been medically provided for by statute. It is now for the administrative bodies to realise the extended powers conferred upon them.

By E. W. HOPE, M.D., B.Sc., Medical Officer of Health, Liverpool.

I AM sure no one regrets more than I do the absence of Professor Hay. I was looking forward with much expectation to his paper, and I came here entirely as a learner rather than as a speaker. The interesting papers which we have heard already bearing upon the Midwives Act and the Notification of Births Act prompt me to say that, however much we are indebted to Scotland for so many of our advances and advantages, Scotland, in this particular instance, has had the privilege of gaining by the pioneer and preliminary work of England. The results have been particularly happy, and, personally, I feel rather desirous that we in England should now have a Midwives Act and a Notification of Births Act having identically the same clauses as the Scottish Act. If we can achieve that, then there will be a mutual interchange of benefit. The provisions of these Acts have been very lucidly explained, and I would like to say that one of the merits of the Midwives Act is that this Act recognises the potentialities of the midwife, and the Notification of Births Act really emphasises the same fact. We must grasp the circumstance that 75 per cent. or more of the births in the United Kingdom are attended by midwives. Now that, I think, shows sufficiently clearly to whom we must look for help in carrying out the various provisions of these Acts. Since the passing of the Midwives Act, some twelve or thirteen years ago, the position of the midwife has been very much improved. The midwives have formed themselves into associations for their mutual advantage, and also for the promotion of the calling in which they are engaged. Every effort, I think, should be made to foster and to encourage these associations

in order that the midwife's calling shall follow very much that of the nurse's calling. Everybody knows that in the last generation or so an immense advance has taken place in regard to nurses. The same has taken place, although perhaps not to so great an extent, in regard to midwives; but in regard to the midwife there always have been sentimental difficulties, shall I call them? Maternity is veiled with domesticity; it is a private affair; it is a domestic thing which is not obtruded on the public eye, and, consequently, the calling of the midwife is a little less popular, shall I say, or sentimental, than that of the nurse. No one, especially in war time, hesitates to extol—and very properly to extol—the great importance of the nurse; in every drawing-room and in any place her usefulness may be discussed, but I venture to think that it would be a bold person who would introduce the topic of midwifery under similar conditions. That, I do not doubt, has been one of the factors which certainly have not helped the midwife. I am one of those who recognise fully the great powers for good which the midwife possesses, and I am glad to be able to say that, in my own personal experience, those powers are used to the best advantage. Who but a midwife can get to know the antenatal conditions. Think what help a midwife can give in the event of a syphilitic baby being born. It is through the midwife that we can get at the mother or the father, so that in future there shall be a healthy baby. Therefore we must realise that the people we have to work with and work through are the midwives, and we must treat them accordingly. (Applause.) Now, may I say one word of the linking together of the voluntary and the official associations? In this particular I think that every town and every district must work out its own salvation. I do not think that one stereotyped scheme is applicable to them all, because you will find in one district that voluntary effort has gone far and away beyond any of the official work, while in another district you will find that voluntary work is practically dead, and the official workers have stepped in. But the great point, I think, is to co-ordinate the two, and I will tell you in a very few words how that co-ordination has been brought about in Liverpool. Take, for example, the maternity hospital. In my view the maternity hospital should be the centre and the pivot upon which all the antenatal centres turn. If in Glasgow you have already established—I do not know whether you have or not—but if you have not, you will very soon establish antenatal centres, convenient of access, as in different parts of the city. Those antenatal centres must be properly officered by medical officers. What sort of person do you think is the best person to attend at an ante-

natal centre? You will agree with me that it must be a doctor. A great deal of antenatal work, so-called, is carried on by benevolent people, which is limited to giving things to expectant mothers—giving them food, or pills, or other things which are thought to benefit them. Clearly there is a great gulf fixed between that kind of antenatal care and the kind of antenatal care which is contemplated by the accoucheur, by the obstetrician, and by the expert you expect to find at the maternity hospital. Now, it seems to me that it would be a good thing that every physician at every antenatal centre shall be connected with the maternity hospital or with some similar institution. If there are not enough on the staff to go round, then appoint others who are competent and capable, but link them up and extend the ægis of the maternity hospital to each one of the antenatal centres, and then you will do a good thing. Now, how can the municipality help in that? Well, it can help by providing the centres or by paying the rent for them, or, as Dr. Leslie Mackenzie has suggested, by making some grants. At all events, they can do something to show interest in the work which will justify the Government grants. Then, with regard to the infant clinics, I think that if you have a large children's institution you cannot do better than extend the influence of that institution to the infant clinics. It is a good thing to do that. Now, I have only one word more to say, and that is in entire praise of the Scottish Act in regard to the notification of births. As we have heard, it is an Act that contains a vast deal more than the mere notification of births, which is just the fringe. It practically contains the whole kernel, the whole essence of the work which can be done in promoting the welfare of mothers and infants.

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(3) (*a*) THE APPLICATION OF THE STATUTES AND REGULATIONS, AND (*b*) THE POSITION OF COUNTY AREAS IN THE FORMULATION OF SCHEMES.

Notes by W. E. WHYTE, Clerk to the District Committee of the Middle Ward of Lanarkshire.

THE promoters of this Conference are to be congratulated in bringing together the representatives of local authorities to consider and discuss the many important points which emerge under the recent legislation dealing with maternity and child welfare, and which call for almost immediate decision at the instance of local authorities. A general consensus of opinion will, it is hoped and believed,

be arrived at on many phases of the new services to be provided, but there are, of course, specialities and peculiarities affecting certain districts and areas as compared with other districts and areas, and particularly there are the differences to be recognised and provided for as between the city scheme and the county scheme.

One or two questions of general or common importance and interest call for consideration at the outset, and it would seem to be desirable the Conference should express their views on these.

The first question to which attention may be directed is that there is—in precise phraseology—no *compulsitor* upon local authorities to prepare and submit schemes "for attending to the health of expectant mothers and nursing mothers, and of children under five years of age." The statutory provisions are, in their phrasing, enabling, instead—it is submitted—of being imperative, although, of course, a *power* in such matters may be construed to be a *duty*. It would have been preferable, nevertheless, in such a vital matter as child welfare that the language should not have been of an optional character, and that every public health authority should have been *required to* prepare and submit a scheme for the approval of the Local Government Board. In no sense can such schemes be considered as applicable or necessary only for particular areas or districts. The objects and purposes of the Act are in every sense national and universal. It is the right of the people to expect, and it is the duty of the local authority to provide, all necessary measures whereby infant life can be safeguarded, protected, and cared for in the widest sense. If there is not to be a universal service, then there will be manifest inequality and injustice, and while one believes that there will be a wide recognition and observance of the powers conferred by the new legislation, it should, nevertheless, not be loosely left, in any sense, to the discretion of any local authority to take all requisite steps in such an important matter affecting the most serious and fundamental features of our communal and national life.

Another matter of general interest and importance is this—

The regulations issued by the Local Government Board provide that the following expenditure at the instance of local authorities is to be excluded from participation in the grant to be made from Imperial funds for approved schemes, namely—

(*a*) Expenditure on residential treatment in hospitals or other institutions; (*b*) expenditure on payments to hospitals for operations; (*c*) expenditure on the provision of milk and

other foods, including patent foods and prepared or modified milk.

Expenditure on non-residential treatment at hospitals will be admitted only where the hospital provides new facilities by making special arrangements for child and maternity consultation centres (the work of which has not hitherto formed part of the normal work of a hospital), apart from the ordinary treatment of sick persons in the out-patients' department.

It is hard to see why a distinction should be made between different items of expenditure, all of which are directed and presumably necessary to fulfil the objects and purposes of the statute.

To exclude certain expenditure from participation in the grant is simply to induce local authorities to refrain from incurring it, and that very often in instances where the need is greatest. The Board presumably have been induced to make the qualification on the ground that the incurring of such expenditure or some of it may be liable to abuse, but surely suitable regulations could be made to adequately safeguard any such possibility. For example, it might be provided that the expenditure in question would only be admitted to the grant if it had been incurred on the certificate of the medical officer of health, whose general line of action and policy in this connection would be subject to criticism on the part of the Board in periodically approving of the local authority's expenditure for grant purposes. If a sufficient and adequate scheme of maternity and child welfare is recognised by the Legislature as being a desirable and necessary thing, and if its national importance is recognised to the extent that Imperial funds are to assist the expenditure, then it is submitted that *the cost of everything that is necessary* to make a scheme successful and adequate should be admitted to the same consideration and assistance. As will hereafter be noticed, this matter has been to a certain extent reconsidered by the Board. It is to be hoped that it will be the subject of further consideration in the near future.

In connection with the question of the local authority supplying food, &c., difficulty may arise if the case is one that is being dealt with by the poor law authorities, and care would require to be taken to ensure that the poor law relief was not diminished or affected by reason of the local authority providing food or clothing as part of their scheme of maternity and child welfare. It will probably be difficult to differentiate between the two interests, but common sense should secure a suitable working arrangement. What must be

avoided is the relieving of the poor law authorities of their obligations at the expense of the public health authority, or *vice versa*, and what must be safeguarded against is the overlapping of the two agencies.

When discussing this phase of the subject the question might equally be raised, what about the family not in receipt of poor law relief who are assisted by the local authority in the way of food and clothing? It may be that they are in comfortable circumstances and quite able to provide all that is required either for the mother or the child. Why, therefore, should they not do so? The parental responsibility should not be taken away or weakened by the working of the local authority's scheme. The spirit of the statute, of course, is to secure that the child or the mother shall have everything that is necessary in order to their good health, and irrespective of the inequity of things the local authority must, out of the public funds, discharge that onus. They have no express power to recover from the father the expense of what they may provide as necessary either for the child or the mother, and it may be that advantage will be taken of such a situation. One would assume, however, that every effort would be made by a local authority to secure that the father should provide everything that was advised as being necessary for his wife and child if he were in a position to do so.

Another question of great importance to local authorities and others is with respect to the nature of and extent to which a local authority may exercise the powers conferred upon it by the Act of 1915. That Act empowers the local authority "to make such arrangements as they think fit, and as may be sanctioned by the Local Government Board for Scotland for attending to the health of expectant mothers and nursing mothers, and of children under five years of age, within the meaning of section 7 of the Education (Scotland) Act, 1908." The language of the Act is certainly wide and comprehensive, but what does it precisely empower a local authority to do? Does it empower them to undertake as they may think fit, and as may be approved by the Local Government Board, *every item of treatment* which, in their judgment, it may be necessary to provide both for the mothers and the infants? In other words, are local authorities, when they set up a scheme under the Act, to make provision for treating as well as advising? The interest of the medical practitioner at once comes into view here. It may be urged that the duty of the local authority is to advise and supervise, and that the actual treatment—unless in certain cases such as hospital treatment, &c., which the Board appear to have already recognised

as being within the scope of a local authority's scheme—should be left to, and be undertaken by, the private practitioner. In the case of medical inspection of school children certain treatment is undertaken by the school medical inspectors, and there would seem to be no reason why treatment for the more ordinary ailments, at all events, should not be undertaken by the local authority under the new powers vested in them. There is this further consideration to be kept in view, however. In industrial districts, as a rule, the workers have arrangements with the local doctors, under which the doctors, in return for a weekly levy upon the workers, afford attendance and treatment not only for the workers, but for their dependants. Having regard to all these circumstances, therefore, it would be desirable if some clear guidance were given to local authorities as to what is expected of them in the way of treatment of mothers and infants.

Dealing with the work as particularly applicable to the smaller towns and villages and rural areas embraced in county districts, it seems evident that reliance will principally be placed upon an organisation for domiciliary visitation. For rural areas this is inevitable and quite proper, but the danger remains as hereinbefore indicated that, in the absence of a specific compulsitor for the inception of adequate schemes, some local authorities may feel disposed to rest content with a makeshift and inadequate provision of district visitation, for example, by merely adding to the duties of the already overburdened Queen's nurses. All schemes, of course, will be subject to the approval of the Local Government Board, but, again, the Board would probably require to give careful consideration to a scheme which was not so comprehensive as it might be, but which might, nevertheless, involve heavy expenditure to the particular district concerned. Emphasis should be laid on the fact that a *complete* scheme of maternity and infant welfare work is necessary in almost every district, and that domiciliary visitation without the other benefits to be obtained at consultation centres, &c., can never properly meet the situation. Domiciliary work, of course, must always be the most important feature of any scheme, for, unless regular and constant touch is kept with the household, other efforts will not prove to be of much avail. Having in view the importance of home visitation and nursing for outlying districts, and having in view also the supreme necessity for skilled attendance at births as well as the special difficulties which may appear to many county authorities to stand in the way of providing hospital treatment, one

welcomes the announcement, in the month of December last, by the Treasury, that the following items of expenditure are to be allowed to rank against the grant, viz. :—

(1) The cost of hospital treatment provided or contracted for by a local authority for complicated cases of confinement or complications arising after parturition, either in the mother or infant, and for infants found to need in-patient treatment.

It should be noticed here that hospital treatment for complications *during* pregnancy is not included. Why that should be so it is difficult to understand, for special attention at such a period is obviously necessary.

(2) Expenditure in support of the cost of a midwife provided for areas that are insufficiently supplied with this service.

(3) The salaries of the health visitors, in respect of visiting cases of measles, whooping-cough, and diarrhœa in young children, and the cost of provision of nurses for young children suffering from measles and in need of their assistance.

Payment of the grant is to be subject to the regulations appended to the Board's memorandum of March, 1916, and also, as regards (1) and (2), to the following conditions, viz. :—

As regards (1), that the extra accommodation, in respect of which the expenditure was incurred, would not have been provided for the cases for which it was used if a contribution from the local authority had not been available; and, as regards (2), that a reasonable fee was paid by all the women attended by the midwife who could afford to pay, and that the Board are satisfied that the services of a competent midwife could not otherwise be made available.

The Local Government Board, in their covering letter of 8th December, stated—

"The Board hold, further, that any assistance which a local authority may provide for such cases as require it should be rendered in kind, and especially that the provision of food, clothing, or other articles necessary for the mother's health should be granted only on the certificate of the medical officer of the maternity centre, and they are prepared to sanction arrangements for providing such assistance."

The Board have not yet, however, indicated that expenditure upon such assistance will be admitted to rank for grants. The

concessions as regards admitting expenditure to the grant should not, it is submitted, be dealt out piecemeal; a broad and comprehensive policy of admitting to the benefit of the grant all necessary expenditure incurred for the objects and purposes in question is much to be desired. It is not in the least likely that local authorities will be unduly rash or extravagant in their expenditure when at least 50 per cent. of it is to be borne by their own ratepayers.

It is at once evident that there will be considerable differences in the schemes to be set up for county districts as compared with the towns and cities. The county district may embrace a number of populous places, and it will also include many scattered hamlets and small collections of population. The division of such an area into suitable and workable visitation districts, so far as the domiciliary side of the work is concerned, will be no easy matter. The distances to be travelled by the staff, and the time occupied; the (in many instances) imperfect travelling facilities available; the travelling expenses, are all items of some moment to the county authority as compared with the town authority, and, while it is not anticipated there will be any insuperable difficulty in the setting up of an adequate scheme, it may be assumed that, proportionately, the expense to a county district will be greater than to a town district.

The establishment of the infant clinic and maternity centre, however, raises a serious phase of the matter in rural districts. As its name implies, the consultation centre must be centrally situated. The more easily accessible it is to the women and children concerned the more beneficial it will be. But where is the central situation to be in the rural districts? It cannot be expected that mothers and expectant mothers—who, be it observed, are under no compulsitor to do so—will maintain the necessary regular attendance by travelling for miles in uncomfortable local trains, by 'bus, or tram, or on foot, leaving their houses and families for several hours in charge of a neighbour. It is essential that the consultation centre should be made as attractive and accessible as possible, and it is assumed, therefore, that in districts such as those referred to it will be necessary to erect and maintain a number of centres in different situations to be visited by the medical officer or officers at stated intervals. This, again, entails a relatively greater expenditure.

The difficulties of obtaining assistance and co-operation on the part of voluntary associations are also accentuated in such districts, not only because of the multiplicity of centres and the area to be

covered, but also for the reason that, in the particular localities where the need is greatest, the number of leisured people within reasonable distance is generally smallest, and organisation is not easily effected or maintained. Voluntary assistance, of course, valuable as it may be, must play a limited and restricted part in any scheme. It will probably be found to be most helpful at the various centres, where it can be regulated and directed under the technical staff.

It is suggested that co-operation and combination between authorities in the matter of maternity and child welfare ought to receive wide recognition, and one is glad to note that the statute itself takes special cognisance of this. In many respects co-operation will be found to be exceedingly advantageous in its operation, and economical in its result to all concerned. It is obvious that in such a universal matter arbitrary boundaries of local authorities should have no governing part. Take, for example, a county area bordering upon a town or city area. The maternity centre of the latter may be—nay, is almost certain to be—much more convenient to those residing in the adjacent part of the neighbouring county area, and it would be futile to ask, and hopeless to expect, that mothers with their infants should walk probably several miles, or incur rail or tram expenses, in order to attend a centre pertaining to their own county authority. It is submitted that *all* centres should be open to *all* mothers. There can be a ready accounting periodically as between the local authorities in respect of any expenditure that has been incurred for food or clothing or the like for mothers or children, or for the provision of accommodation and attendance on a scale that would not have been necessary but for the influx of persons from another area. Similarly, for hospitals and other institutions, there should be a common agreement among local authorities which would provide that, while a local authority should primarily provide for and treat those directly chargeable to it, they should also, as far as their accommodation and facilities permit, treat mothers or children from neighbouring areas on stated terms. Joint institutions could also, with advantage, be established in many places.

It may now be desirable to consider in some detail the probable features of a county scheme. A nucleus already exists of the administrative and executive staff. Some local authorities have employed health visitors for several years, and now they are all being

required to appoint inspectors of midwives. Staffing appointments will be readily effected as the other features of the work proceed.

Different authorities, of course, either by reason of circumstances or according to the views they take, will propound schemes of a different character. For example, some county authorities may be disposed to have a principal centre at which there will be located a resident medical superintendent, and where special apparatus and equipment will be available. Others, again, will favour the establishment of local centres, and constitute their Public Health Department as the principal centre for administration and other purposes. Equally, it will be thought desirable in some districts to co-operate with and utilise for the purposes of infant welfare work, district nurses, or again to arrange for the nurses undertaking not only infant welfare work but tuberculosis and other public health work. Each authority must propound the scheme which it thinks best, but it should be emphasised that every scheme should start from the basic principles that existing suitable agencies will be utilised and incorporated as far as possible; that co-operation will be sought wherever feasible, and that combination or amalgamation of areas in the matter of the larger services, *e.g.*, institutions, will be a feature of every scheme.

It is submitted as desirable that the local authority should build rather than lease premises, and it is assumed that, as in the case of the tuberculosis grant, the cost would be admitted to the welfare grant. Having regard to the necessity for the education of a serious and enlightened public opinion and convention on this subject, it would be well that the centres should be as adequate and as attractive and accessible as possible, and if other local services could be conjoined with the centres all the better. The local authorities who decide to provide a principal centre may find it expedient to provide hospital accommodation there, and it is for consideration whether a number of health visitors should not be in residence at this centre. Where the principal centre is distant from the office of the medical officer of health, it may be found proper to make the principal centre the office for the organisation of the whole work and the keeping of records.

Where smaller centres fall to be provided throughout the area the doctor in charge of the principal centre, or in charge of the work in the public health office, as the case may be, would require to visit at these branches on certain days periodically. The district health

visitors might also be lodged at these centres. Whether the necessity for day nurseries, &c., will be fully appreciated remains to be seen.

Outlying portions of any district would, as regards consultations, probably be as satisfactorily provided as possible by the organisation of lectures and demonstration to be delivered at certain times throughout each area.

There should be little difficulty in providing convalescent homes—which, of course, must be in the country districts—if a whole-hearted interest is taken in the question. A number of local authorities could be served by one up-to-date institution, and there can be no question as to the desirability of local authorities specially combining in this matter. With regard to hospital accommodation, if county authorities do not find it reasonably possible to provide such accommodation and facilities in connection with or in the vicinity of their principal centre, they may be able to effect arrangements with adjoining local authorities or with the managers of institutions in neighbouring cities. It is suggested, however, that it would be very desirable that a certain number of beds should be provided at every centre, however small, primarily for the purposes of observation. If this were done it could be readily determined under the most economical and convenient arrangement whether institutional treatment and residence were required in particular cases.

In connection with the home visitation, the main consideration, as has been indicated, is to secure a proper division of the area into suitable visitation districts, and to provide an ample staff to overtake the work. This aspect of the subject will be rendered all the more important where local authorities do not extend the use of their infectious diseases hospitals for measles and whooping-cough.

The extreme desirability of the provision of skilled attention at and in connection with births calls for careful consideration on the part of the responsible authorities of their powers in the matter of the provision of qualified midwives. It may be that the various centres throughout a district could act as inquiry offices in connection with this matter, and in many instances the local authority may find it necessary to employ whole-time midwives in certain portions of their areas where the practice of relying solely upon the services of handy women is found to be prevalent. The possibility of conflict with the interests of private practioners and the danger of abuse of opportunities on the part of certain sections of the public must, however, always be kept in view.

As already mentioned, it will probably be found to be expedient in some schemes to co-operate with the district nursing associations,

and, in some places, to engage the services of the district nurse. It is urged that by such an arrangement overlapping may be avoided, and a desirable restriction of nurses attending at the one household may be secured. But, on the other side, it may be equally assumed that the present district nurses are fully occupied with their sick nursing duties, and that they could not—to any extent, at all events—undertake the extensive new duties which will follow from the inauguration of maternity and child welfare schemes. And if that is so, the question arises as to which is the better method of meeting the circumstances, namely, the appointment of additional district nurses, so that they may, within their area, undertake *all* the duties, or the employment of an adequate and whole-time staff by the local authority to attend to its own requirements. Apart from the district nursing associations, there would appear to be little possibility of co-operation with voluntary institutions and agencies in the areas of county authorities. As a matter of fact, practically no other agencies are in existence. A ready response may, however, be confidently expected from the district nursing associations wherever a mutually advantageous arrangement can be made. The question also arises for consideration as to whether the medical officer of health or physician-superintendent should provide a short course of tuition and training for voluntary workers, or whether such tuition should be afforded and conducted by some central organisation. Circumstances will determine in different districts whether classes and schools for instruction in domestic management and child rearing will be conducted by the School Boards, or preferably taken in hand by the local authority. Another point that is of unquestionable importance is the advisability of a local authority employing women who could assist either expectant or nursing mothers with their housework during their period of illness, or while they are in hospital. The query arises here, would such expenditure be admitted as proper expenditure of a local authority, and would it be admitted to the benefits of the grant? As a practical and needful measure which would be certain to secure good results this is one of first importance.

It may be found useful to have sub-committees in each locality for consultation and supervision in connection with certain aspects of the work. The inclusion of ladies on the committee is certainly a commendable feature.

The foregoing considerations point to the expectation that the cost of maternity and infant welfare work will generally bear more heavily upon ratepayers in county districts than upon ratepayers in cities or large burghs, and it is submitted for consideration whether

some additional allowance or grant from Imperial sources should be conceded in cases where it is proved that the conduct of the work in an adequate manner entails such comparatively greater expenditure.

The question of the milk supply in relation to maternity and child welfare schemes is one of very great importance, and the happenings of recent times indicate the advisability of local authorities taking this matter into serious consideration.

The securing of a pure and a sufficient supply of milk for children is of paramount importance, and unless this side of the child welfare movement is adequately dealt with, the success attending the other efforts and agencies will be undoubtedly prejudiced. The question is one that has become acute in some districts at the present time as a consequence of the war.

Professor Munro Kerr (Glasgow)—I wish to say a word regarding the grant for institutional treatment. We have in the Maternity Hospital to treat a large number of expectant mothers. Very often the proportion of expectant mothers in the hospital is about 20 per cent. of the patients, and according to the Act there is no satisfactory provision for providing for the expenses incurred in treating these women in the hospitals. The Corporation of Glasgow public health authorities have kindly come forward to help in this matter, but I wish to draw the attention of the Congress to this simple fact, that there is no provision for the cost of treating patients inside a hospital.

Dr. W. Leslie Mackenzie—Might I say a word with regard to what Professor Munro Kerr has said? There is power for the local authority to spend the money, but the Treasury regulations do not confer any grant.

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(4) (*a*) ITS APPLICATION IN TOWNS WHERE HOSPITALS AND OTHER VOLUNTARY ASSOCIATIONS ARE ALREADY PROVIDED.

By MATTHEW HAY, M.D., LL.D., Professor of Forensic Medicine and Public Health, University of Aberdeen, and Medical Officer of Health, Aberdeen.

If I could have been present I would wish to have joined in welcoming the recent legislation in the interests of a healthy motherhood and childhood, never more precious than at present, and in congratulating the Local Government Board on its admirable and wise endeavours

to broaden the purposes to which the proposed grant-in-aid under the new Acts can be applied.

In the many problems before the Conference the fundamental causation of the excessive wastage of infant life is one on which our knowledge is still far from being full and exact, but we know enough to believe that the problem is not incapable of considerable solution. As in attacking this wastage we shall have largely to deal with the alteration and amendment of domestic habits, we are not to expect any sudden or striking results, however well conceived and administered our schemes may be; but that good results can gradually be achieved is not to be doubted.

I am glad that the control of the midwife has come along with the available care for the mother and the infant, although I must allow that, so far at least as I have come to know the midwife in Aberdeen, I find her on the whole exceedingly anxious to do her best for her patients and very willing to attend to any advice from the Health Department. The education of midwives in future is now, in some measure, assured; and some philanthropist could hasten the time when none but fully qualified midwives would be in practice by providing funds for a small pension scheme to facilitate the retirement of the older of the present midwives.

I refer to the midwives not so much for any possible misdeeds as for the importance attaching to the authority and advice of those who have seen the mother before the birth and have had the direction of the mother during the lying-in period. It is then that the foundations of good or evil may be laid. If there is one factor in infant mortality more clearly proved than any other it is the substitution of artificial for breast feeding. It plays, as I have found in my own city, a relatively small part in the infant deaths among the better-off classes with ample domestic assistance and the fullest care in nursing, but it is far otherwise in the poorer homes. We must largely depend on the active and intelligent assistance of midwives and medical practitioners in striving to put this right in so far as it may be practicable, with such help as local authorities and the public, and especially large employers of female labour may be willing to give in providing infant crèches, and, if necessary, by a maintenance grant to the mother during at least the first month after childbirth. If employers are to profit by the labour of married women, which in normal times is relatively cheap, it would not be unfair, although never likely to be made practicable, that they should be obliged to bear this burden. It is very little to pay for the birth of a potential worker.

The further care of the mother and the child, during at least the infant stage, must, in such homes as need it, be very largely in the hands of well-trained health visitors. The mothers that most require help are often too careless to come to infant consultations, or, if not unwilling, find it difficult to get away from the demands and care of a family of little children, or will come only when the child falls ill. Such mothers—and they are numerous—can be reached only by health visitors. The medical visitation of such cases under a maternity scheme has scarcely yet anywhere been undertaken, and would be contrary to the expressed views of the medical profession. The adequate training of the health visitor is therefore of paramount importance, whether she is to be confined as in towns to mother and child visiting, or is to combine, as may happen in rural areas, such duties with those of a district nurse, or even of a maternity nurse. But whatever be her original training, it cannot fail to be of the greatest advantage that she should work where possible from a clinical centre, in which she would have full opportunity of witnessing month by month and year by year real clinical work in wards, as well as out-patient departments, conducted by skilled medical men alive to all modern advances.

An ideal centre in a large town could be constituted by a maternity hospital, with a ward for antenatal cases and a ward for marasmic babies, accompanied by the usual consultations that characterise well-arranged maternity centres. If the services of specialists can be obtained for special kinds of ailments so much the better. Health visitors working from such a centre, with a possible fortnight or month spent every year in indoor work alone, would attain and preserve the highest possible proficiency. The scientifically conducted clinical work would be the whetstone by which the edge of their proficiency would be constantly kept keen. And it would be a good thing for rural health visitors, debarred in their ordinary work from the opportunity of such an association, to be allowed by mutual arrangement between county and city to spend from time to time a week or two in such an institution.

Such a combined institution and chief centre would provide also an ideal training school for the midwives and health visitors of the future, qualified by the condition that a whole-time health visitor should, in my opinion, preferably also have had a nurse's training, but adequately trained health visitors must obtain substantially better remuneration than at present, if we are to command the services of the most competent women.

I recognise that ideal arrangements for the furtherance of mother and child welfare may not everywhere—and perhaps not anywhere—be possible. And I agree with those who hold that every reasonable effort should be made to utilise existing institutions and agencies so far as possible. This will mean that scarcely two places will be able to arrange for quite similar schemes.

There would seem to be some difficulty, if the opinion of the medical profession, as voiced by the British Medical Association, is not to be set aside, in regard to the giving of actual treatment as distinguished from hygienic advice, unless medical practitioners are employed for the purpose. One quite understands and may even appreciate the attitude of the profession. But for the sake of the profession itself, and, above all, in the interests of a well-organised effort on the part of the whole profession and public authorities in the prevention and cure of disease, I have for some years been a strong advocate of a State medical service, both in medical and nursing *personnel* and in the provision of institutional care. It would, I have not the slightest doubt, make for much greater efficiency both in our preventive and in our curative efforts, and for the truest economy in obtaining the fullest value for the expenditure. It would also enormously simplify the administrative problems we are now facing in the several health schemes which recent legislation has established or made possible.

By A. MAXWELL WILLIAMSON, M.D., B.Sc., Medical Officer of Health, Edinburgh.

It falls to me at this time to say something in connection with the scope of the Midwives and Notification of Births Acts in towns where hospitals and other voluntary associations are already provided.

I would in the first instance desire to refer to the clamant needs for just such additional powers as are contained in these Acts, and for the supreme urgency which rests now on the various local authorities in carrying these powers out to their fullest extent.

It is impossible to look into the mortality statistics having reference to the earliest years of childhood without being driven to the conclusion that, irrespective of all considerations as to cost, the time has certainly arrived for the adoption of every possible preventive measure, in order to diminish as far as can possibly be done, the enormous death-rates during these early periods of life.

I desire then at the outset to refresh the minds of the members of this Congress as to the actual facts, as revealed by figures, having reference to these early periods of childhood. These are, no doubt, already generally well known, but it is useful, and indeed necessary, to refer to them before dealing with the various proceedings which should be adopted in order to improve the present state of matters.

Let me refer to the figures applicable to Edinburgh, as these may be regarded as fairly indicating the condition of matters in large centres of population generally.

I have had a chart constructed which the members of the Congress might look at at their leisure, but, in the meantime, a glance at it will serve to convince how essential it is that every possible step be adopted to safeguard specially the lives of children until they attain school age.

The tall, black columns on the chart indicate the number of deaths of infants under one year of age, the red columns those of children between one and five, and the blue those of children from five to ten.

Stated in figures, we find that in one year—1915—there are 1279 deaths under five years of age as compared with only 120 during the succeeding years, viz., from five to ten.

But in the next place let me point out how impossible it is to appraise the value of existing institutions, or to arrange for the establishment of additional ones, without having as a preliminary a precise knowledge of the particular districts in a city where the needs are most clamant, as indicated by the death-rates pertaining to each.

In constructing a scheme of child welfare for the city of Edinburgh, I considered it essential in the first instance to have a table of these figures prepared, and I desire to commend the form of it to any members of the Congress who may be charged with the preparation of such a scheme, and may not yet have completed it.

Such a table of figures is simply full of useful and at the same time startling information. The totals on the lowest line indicate the deaths of children under five years of age which have occurred in different wards of the city, while the last column on the table shows the causes which have contributed toward those numbers.

A mere glance along the lowest line of the table will at once indicate the particular districts or wards in which the fullest provision must be made for the supervision of child life, while in some

cases it is apparent, from the comparatively low numbers, that almost no special provision falls to be made.

The tremendous variation in these figures at once arrests attention. In some wards, for example, the numbers are so low as 112, 118, 159, while in others they amount to 641, 669, and 797.

It is clear, then, from a table constructed in such a manner, that we have an indication at once provided of the particular places where special provision must be made by institutions, and where supervision toward the prevention of these enormous and disproportionate rates of mortality must be exercised.

It is impossible to leave this table, however, without just glancing at the striking facts brought out by the figures on the last column. There we find the causes which contribute to the disproportionate number of deaths among young children under five years of age.

Prematurity of birth and immaturity at birth, of course, stand out prominently at the top of the list, and cry out loudly therefore for all the benefits that must follow the operations of the Midwives Act and a maternity scheme, which will ensure proper advice and assistance, during the critical period of pre-motherhood.

Measles, whooping-cough, and pneumonia—the latter, no doubt, a complication, in the majority of cases, of one or other of these conditions—follow next on the list as causes which lead to an enormous amount of sacrifice of young life.

It is not too much to say that these named diseases are popularly regarded as of the smallest import, and that they are the very diseases for which, as a rule, a local authority makes least provision.

Neither is notifiable, but as a preliminary toward the supervision which must certainly, in face of these figures, be exercised under a well-thought-out child welfare scheme, both must at an early date become so.

It is almost a certain prophecy that, under a scheme which provides adequate preventive measures—home nursing, and where necessary, sufficiency of hospital accommodation—the number of fatal cases due to these forms of disease would be reduced to almost a fraction of those now ruling.

The other causes of death as set forth in the table are comparatively small, but it is safe to say that in regard to most of them preventive measures of the kind indicated would hold out in almost all cases a certain hope of a large diminution in numbers.

Having then referred to the large mortality rate among young

children, and having further shown where that rate is greatest, and the causes which contribute to it, let me now refer to the various institutions which, in my view, are necessary in order to combat the existing evils in a large city centre of population.

It may at once be said that in most if not in all cities there exist at the present time so many of these, both in number and variety, as to suffice to cope with all the immediate necessities under a maternity and child welfare scheme.

While no expenditure therefore should be necessary in the construction of new buildings, there still remains the immediate necessity of co-ordinating the work of those already in existence.

Thus, each will be able to act as a part only of one great organisation, and contribute its quotum toward a success which can only be anticipated when all forces are combined toward the attainment of a common object.

The Edinburgh scheme is an extremely comprehensive one, and under it I have, of course, taken advantage to the fullest extent of existing institutions.

The Royal Maternity Hospital and the Royal Hospital for Sick Children I have designated the two main centres under the scheme, and while clinics will be carried on in each, their chief function will be consultative, and to them will be relegated from subsidiary centres the more complicated cases and those specially requiring indoor treatment.

The various dispensaries throughout the city I have called subsidiary institutions, and in these there will, of course, be clinics for mother and child, and from them there will be home visitation under the direct supervision of senior physicians who will be recognised as extern physicians of the two main institutions.

In this way there will be a direct connection established between the main and the subsidiary centres. In addition to such curative institutions, however, I hold strongly that much greater attention must be paid in the future than has been in the past to all organisations which are preventive in their nature. Indeed, I consider that it is largely in connection with the work of such that hope for the future chiefly lies.

Open-air playgrounds, kindergartens, day nurseries, child gardens, all rank prominently in the Edinburgh scheme, and all must, in my view, there and elsewhere, be enormously increased in number in order to meet the necessities of the coming years.

I have gone the length of suggesting in the Edinburgh scheme

that every church in the city should be responsible for at least one such institution, and I do not consider that a number sufficient for the needs is otherwise likely to be established.

I would hope indeed that this Conference will agree in expressing an opinion in favour of such a step in order to impress upon the churches generally their very evident duty in connection with this all-important matter.

Let me make one more reference to the Edinburgh scheme.

I have suggested the establishment of a convalescent home for young children of a capacity far beyond anything that has up to the present been dreamt of as a necessity.

Surely we have now reached the stage of recognising the truth of the old adage that "Prevention is better than cure," and here is an opportunity of proving in practice the truth of such a statement.

It is safe to affirm that if weakly children in the early ages of their lives were removed, literally by the hundred, from surroundings certain to aggravate their condition, to the healthy environment of a country home, our infectious disease and other hospital expenditure would speedily reflect the effects of such treatment. Here also lies a rational method, full of the most promising prospects, of intelligently using means to prevent tuberculous diseases, the present expense of treatment of which appears wholly disproportionate to the results attained.

I venture to direct attention to one more chart which, I think, is certain to be of interest to the members of this Congress.

On it I have set out a general description of the housing conditions in the different wards in the city of Edinburgh with the number of one- and two-roomed houses contained in each; the birth-rate; the infantile mortality; the estimated population of children under five years of age, and the mortality rate among *them*.

I have also placed on the chart the most prominent curative and preventive institutions which are included in the maternity and child welfare scheme of the city. It will be observed that, while certain of the more important centres are common to the whole city, the number and descriptions of others is very much in proportion to the requirements of each ward. Thus, obviously, the main centres,

The Royal Maternity Hospital,
The Royal Hospital for Sick Children,
The Tuberculosis Centre,
The Infectious Diseases Hospital, Colinton Mains, and
The Children's Convalescent Home

are at the disposal of the citizens generally, while in the various wards the subsidiary centres—curative and preventive—are selected so as to, as largely as possible, make the supply in proportion to the need.

There is a temptation to go through this chart in detail, but out of respect for the time and convenience of the Conference I will content myself in directing the members' attention to it.

One more matter falls to be referred to, and possibly—indeed I consider certainly—the most important in connection with a maternity and child welfare scheme. It may probably be taken for granted that, as in Edinburgh so in other cities, existing institutions are to be utilised in carrying out the various requirements of this new departure of work.

These institutions having been already in existence, it is obvious then that something new must be done in regard to them in order to justify the large expenditure which such a scheme will entail, and in order to effect results of a vastly different nature from those which have been attained heretofore.

This I consider will be accomplished in two ways.

In the first place the co-ordination brought about among these institutions, all of which will be in immediate touch with one common head, viz., the medical officer of health, must, of itself, ensure a state of efficiency which was not possible when each institution acted as a separate entity.

But by far the most important contributory toward success consists, in my opinion, in increased and improved district visitation. Indeed I regard this part of the work as being the necessary foundation of the success of a scheme. It is the *sine qua non*, and can only, in my view, be successfully overtaken by a judicious combination of voluntary and official assistants.

In the city of Edinburgh a staff of about 300 voluntary visitors who have for years done altogether magnificent work in connection with infantile mortality will be associated with a considerable staff of official district visitors. Each will have her own particular small district, and each will be responsible for it.

In carrying out their duties the word "compulsion" will be kept well in mind for judicious use in those cases where found necessary, and, indeed, in this regard a tremendous advance will be made along the line of safeguarding the health of the younger generation. While carrying out the systematic district visitation, each weakly or ailing child will engage the attention of the visitor.

If there is a private medical attendant, the visitor will require him to be called, and on the next occasion of her visit will see that this has been done. If there is no such medical advice available, a card will be given to the mother on which will be printed the address of the curative or preventive centre for that particular district, and in the case of the former a nurse will be present at the clinics who will hear the advice given, and will subsequently visit the house in order to see it carried into effect.

If such methods then—as have been little more than touched upon owing to limitation of time—are carried out to the fullest extent of their possibilities, it is certain that an almost immediate effect must be noticeable not only on the far too high infantile mortality rates but also on the largely preventable rates which prevail among young children before reaching the care and supervision of the educational authorities.

EDINBURGH.

Infantile Mortality in Wards.

Ward.	Conditions.	Rate.
Calton,	Parts bad,	101
Canongate,	Generally bad,	166
Newington,	Parts bad; generally very good,	118
Morningside,	Very good,	75
Merchiston,	Very good,	45
Gorgie,	Parts very overcrowded,	141
Haymarket,	Very good,	68
St. Bernards,	Parts bad; generally very good,	119
Broughton,	Good,	66
St. Stephens,	Parts bad; generally good,	118
St. Andrews,	Parts very bad; chiefly business premises,	140
St. Giles,	Very bad,	173
Dalry,	Generally overcrowded; parts bad,	158
George Square,	Generally bad,	142
St. Leonards,	Very bad,	189
Portobello,	Generally very good; parts bad,	128

EDINBURGH CHILD WELFARE SCHEME.

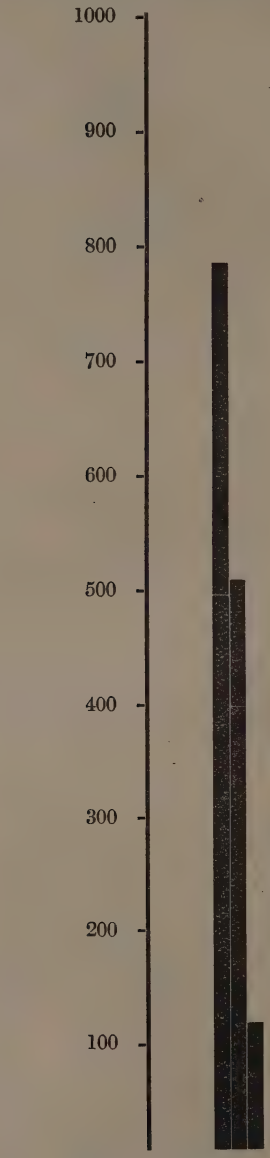
Table of Statistics Showing Necessity for Child Welfare Scheme and Districts where Necessity is Greatest.

Deaths of Children under Five years of age during Years 1911-1915 inclusive.

Cause of Death.	Calton.	Canongate.	Newington.	Morningside.	Merchiston.	Gorgie.	Haymarket.	St. Bernards.	Broughton.	St. Stephens.	St. Andrews.	St. Giles.	Dalry.	George Sq.	St. Leonards.	Portobello.	Institutions.	Totals.
Smallpox,	...	...	..	...	...	...	...	...	...	...	...	...	....	...	...	...	...	...
Chickenpox,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Measles,	28	74	14	1	2	30	8	8	13	12	14	87	35	36	55	18	16	451
Scarlet Fever,	7	10	2	2	6	8	4	4	2	4	2	12	9	9	10	3	3	97
Whooping Cough,	51	56	15	11	14	35	9	17	16	19	16	59	50	41	58	15	7	489
Diphtheria and Croup,	11	29	7	2	8	12	6	19	12	12	5	21	11	13	26	11	4	209
Erysipelas,	...	...	...	...	...	1	...	...	1	...	...	2	2	1	1	...	...	8
Tuberculous Meningitis,	19	21	4	5	8	22	5	11	7	9	10	25	32	13	18	9	3	221
Abdominal Tuberculosis,	6	13	3	4	4	7	2	5	5	7	5	14	13	7	6	4	...	105
Other Tuberculous Diseases,	6	12	4	3	4	10	3	12	4	4	6	25	9	15	11	12	6	146
Meningitis (not Tuberculous),	11	8	8	3	5	6	1	6	9	5	2	9	11	8	19	7	1	119
Convulsions,	13	26	12	1	6	17	4	3	13	10	10	26	26	14	24	11	2	218
Pneumonia (all forms),	53	84	17	11	12	44	12	23	24	31	27	133	52	62	110	51	10	756
Bronchitis,	26	25	3	5	9	34	5	6	1	13	8	39	25	29	40	18	5	291
Laryngitis,	1	1	1	2	...	1	...	...	1	1	1	4	3	1	1	1	...	19
Diarrhœa and Enteritis,	23	58	9	7	11	19	3	9	9	23	15	64	39	17	43	27	4	380
Other Digestive Diseases,	9	15	5	6	5	8	2	3	6	9	3	9	7	15	13	10	3	128
Congenital Malformations,	14	22	7	7	9	10	6	8	6	4	5	13	7	13	13	8	1	153
Premature Birth,	59	63	19	15	29	41	18	23	30	30	14	89	53	42	86	51	15	677
Atrophy, Debility, Marasmus,	22	49	8	10	10	29	5	10	11	20	11	56	31	32	52	42	4	402
Atelectasis,	7	4	3	2	2	4	5	1	5	3	1	7	3	4	8	2	1	62
Injury at Birth,	...	3	2	3	1	1	3	2	1	2	...	5	6	4	2	3	1	39
Suffocation—Overlaying,	2	8	...	...	1	2	1	2	1	2	...	13	7	2	6	1	...	48
Syphilis,	6	12	4	...	...	2	2	2	4	9	5	18	10	10	11	5	11	111
Rickets,	1	1	1	...	...	2	1	1	....	...	...	4	2	...	2	2	3	20
Violence,	5	9	3	2	3	4	6	3	2	2	2	17	11	11	13	8	4	105
All other causes,	23	38	13	10	10	25	7	11	9	16	10	46	18	20	41	18	8	323
Totals,	403	641	164	112	159	374	118	189	192	247	172	797	472	419	669	337	113	5578

EDINBURGH.

DEATHS OF CHILDREN UNDER 10 YEARS IN 1915.



Under	1 year,	-	774
1 and under	5 ,,	-	505
5 and under	10 ,,	-	120

By Dr. WM. STEWART COOK, Medical Officer of Health, Greenock.

In the application in any district of the powers conferred upon local authorities by the Notification of Births (Extension) Act it is of importance to keep prominently before us the social conditions of the district, as it is largely due to these conditions that the need for this special work has arisen. Before we attempt to prescribe for the malady we must first understand its causes, and this is no less important where these causes are not immediately removable. In the short time at my disposal I shall confine my remarks to the application of the provisions of the Act in large towns, and refer to what is being done or is about to be done in Greenock. Greenock, I may say, is a large industrial town of about 80,000 inhabitants, and in many respects, such as the provision of hospitals and voluntary associations, comes midway between the large cities like Edinburgh, Glasgow, and Aberdeen, and the smaller towns where no institutional provision exists. In large towns like Greenock we have in our densely populated areas all the social conditions which so seriously menace the health and life of children in our large cities. I may be permitted merely to mention the main causes. First, we have an acute housing problem. Like the prevention of tuberculosis, child welfare is largely a question of housing. Little can be done to combat this, however, till after the war. Second, we have a low standard of living, moral as well as physical. Our working classes should have adequate wages, and no less essential is wisdom and intelligence to properly spend these wages. There is among a large section of our working classes too low a moral standard; they fear neither God nor man. Lastly, there is ignorance on the part of mothers of the simplest principles of infant hygiene. Ignorance often combined with thoughtlessness and carelessness of such essentials as proper feeding, domestic and personal cleanliness, and the management of the common ailments of childhood leads to untold disease and death among children. These bedrock factors in causation must be constantly before our minds in dealing with this matter. Their prevention and removal is of paramount importance; without that merely curative measures will be so much beating the air. I make no apology for introducing this matter before dealing with the work arising directly out of the application of the powers conferred by the recent Notification of Births Act. The general purpose of the Notification of Births Act is to enable local authorities to make arrangements for attending

to the health of expectant mothers, nursing mothers, and children up to the age of five years. This extremely wide and important duty, or rather opportunity, is conferred on local authorities, and our first concern in carrying it out is to study what is already being done in our district to cover this ground, to look round and make an inventory, as it were, of all agencies, voluntary and other, which are concerned in promoting the health of mothers and young children. It will then be apparent where overlapping exists, and also what gaps require to be filled in making the scheme complete. The circumstances of no two districts will be found quite alike, hence the importance of each scheme being prepared locally and adapted to the peculiar needs of the district. All will, I think, agree that a large town, such as the one we are specially considering, should be able to have in itself a complete scheme. The town is compact, with easy travelling facilities, and therefore consultation centres and institutions can be made readily available. In this respect the problem is easier of solution than in country districts where combination will frequently be necessary in order to make use of facilities provided in more populous centres.

Among other features a scheme such as we are considering should provide for systematic domiciliary visitation of mothers and children; maternity and child welfare centres and clinics where outdoor advice on all questions of health is available; hospitals where mothers expectant or nursing, and children in need of indoor treatment may be received; special hospitals, *e.g.*, for eye, ear, throat, and nose conditions; convalescent homes and day nurseries, open spaces, &c. We must also have provision for an adequate maternity service for the district, and this includes a maternity hospital, and, lastly, we must have facilities for educating mothers and young women in the duties and responsibilities of motherhood. Records will be kept in a central office of the work done in all the various departments of the scheme, use being made of a card system. Each child when notified at birth will have a card placed in a folder, and all cards representing reports of visitation, records of infectious and other illnesses, treatment in institutions, &c., will be filed in the original folder. At the age of five we shall have, it is hoped, a fairly complete medical history of the child to hand over to the School Board authorities.

In Greenock arrangements have either been completed or are well advanced with the directors of the Infirmary, the Eye Infirmary, the Children's Convalescent Home, the District Nursing Association, and

the Day Nursery Committee. We have received every encouragement and assistance from the authorities mentioned in our negotiations. One of the conditions of our co-operation is that the staff of the institution shall furnish the necessary records, and the Corporation propose to give a grant to cover this and any necessary additional expenditure incurred. Not only must existing agencies be linked up, but essential gaps must be filled, and we have several important gaps to fill in Greenock. In particular, we have no maternity hospital. The lack of such an institution has been long felt by both medical practitioners and the public. I am glad to say that one of our own councillors has recently gifted a villa to be equipped as a maternity hospital. Another want in Greenock and in many towns is an infant hospital. We have, it is true, a good general hospital where children are received, chiefly surgical cases, and we have a special hospital for eye, ear, throat, and nose work, but what I have in view is an infant or children's hospital where such cases as the following may be received from the poorer districts:—Infantile diarrhœa, malnutrition, the sequelæ of measles and whooping-cough. These conditions are extremely fatal in the slums, but show a low death-rate among the better classes, and no treatment other than indoor treatment will in my opinion be effective. I am confident of brilliant results in these cases if they are removed for hospital treatment at a sufficiently early stage, and with a thorough-going scheme in operation this should be possible. In Greenock I have advised that a special hospital for this work be established, and we have already a house and site in view, the property of the Corporation, though, in any case, it will not be equipped or established till after the war. During the last ten or twelve years we have had two trained nurses with maternity experience acting as health visitors to young infants from birth and during the first year. In that period about 15,000 infants have been visited, mostly within twenty-four hours of birth. Now we intend to appoint a lady doctor, part of whose duty will be to supervise and extend this work. Up to the present we have not employed voluntary visitors; as we felt, to be efficient, voluntary work presupposes a certain training and supervision which was not possible, as hitherto we had no sufficient staff to undertake it. We hope now, however, to make use of voluntary workers under the lady doctor and health visitors. We intend to establish two consultation centres or clinics. One for expectant mothers, nursing mothers, and infants up to one year, and one for children from one year to five. This we consider the

best division, as the infants and nursing mothers will naturally be together. Our lady doctor and trained health visitors will attend and conduct the first clinic, and when necessary visit the homes. In connection with the other clinic to be attended by children from one to five years of age and the domiciliary visitation of these children, we intend to make use of the nurses of the District Nursing Association, under the lady doctor. There may possibly be some difference of opinion as to the wisdom of this proposal, but after six years' experience of co-operation with the district nurses in connection with tuberculosis work, I am definitely convinced of the advantages of this arrangement over the employment of special Corporation nurses. We intend to pay a grant to the Nursing Association to enable them to increase their staff, and in return we shall receive the part-time service of each district nurse in her own district. As in the case of our tuberculosis dispensary two nurses will attend each day at the clinic, one nurse who is specially concerned with this department of work will be constantly in attendance, while the others will come monthly in rotation. One advantage of utilising the district nurses is, of course, the prevention of overlapping. Frequently the district nurse is already attending, or has recently attended in the same house, or it may be the same patient. She has already obtained the confidence of the family, and is at once looked on as a friend. Her visits attract no special attention on the part of neighbours. Not the least advantage, however, is the bridge which the district nurse forms between the clinic and the general practitioner who is attending at home. We have found this most important in dealing with tuberculosis. The nurse is not confined to the narrow specialism of "phthisis nurse" or "baby nurse," and the broader outlook adds interest, and is advantageous to the nurse herself. This raises the question as to whether the private work of medical practitioners is to be in any way linked up with the scheme. If not, our records will obviously be deficient. I see difficulty in arranging it at present, however, further than through the agency of the district nurses who attend the great majority of cases of serious illness in the homes of the working classes. Other parts of our scheme I can do no more than mention. Provision is made for a Corporation midwife, rendered necessary at present by local conditions. Day nurseries and an open space centrally situated in connection with the child welfare centre are contemplated. Also arrangements will be made for classes for mothers and young women. Throughout the

scheme it is intended to keep the importance of educating mothers prominently in view. I have given an outline of our present proposals, but would remark in closing that our scheme must be capable of development from year to year in the light of experience.

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(4) (*b*) ITS APPLICATION IN COUNTY AREAS.

By JOHN T. WILSON, M.D., D.P.H., County and District Medical Officer of Health, Lanarkshire.

In the three county sanitary districts of Lanarkshire the people live under a great variety of industrial and social conditions, so that almost all aspects of the problems we are considering can be studied. In the purely agricultural districts the birth-rate is a little over 20 per 1000 of the population, while the infant mortality rate is a little over 50 per 1000 births, *i.e.*, out of 100 births only 5 die within the first year of life. In the mining and manufacturing areas the social conditions of life again vary considerably in different localities, but, speaking generally, the less the people are housed under town conditions and more under rural conditions the better are the health results obtained. Speaking generally, the birth-rate in these areas is about 35 per 1000 of the population, and the death-rate about 120 per 1000 births, yet in many localities the birth-rate is as high as 40 and the death-rate 150. Thus while in agricultural areas only 5 out of every 100 infants die, in some mining areas 15 out of every 100 die within the first year of life. I have given the customary methods of expressing infant birth-rates and death-rates, but the result might be more clearly expressed by saying that while an agricultural population produces 100 infants and loses 5, a mining population may produce 200 and lose 30. The balance of gain to the population being 95 in the one case and 170 in the other up to the end of the first year of life. If we take a wider survey of life, and compare the birth-rate with the general death-rate at all ages it will be found that it is not the healthy rural areas but the busy mining and manufacturing areas that add most to our population. A birth-rate of 38 to 40 and a general death-rate of 13 to 15 per 1000 of population is not uncommon in our industrial areas, and represents a very large natural increase to the population each year.

The application of recent legislation and the preparation of schemes for the benefit of maternity and child welfare will naturally vary in different areas according to the varying conditions of life, as

above indicated, and perhaps it would be of interest if I gave some idea of what is being done in the county sanitary districts of Lanarkshire.

The Middle Ward area has a population considerably over 200,000, of whom about three-fourths are living in towns and villages, and a staff of nurse health visitors has been employed since the year 1910, and presently number six. They are all hospital trained and certificated nurses. They are also trained in midwifery, and possess the C.M.B. certificate. They act under the direction and advice of the medical staff of the Public Health Department. Home visitation has been, and will continue to be, the principal method of carrying out the work.

Clinical centres each with a medical officer and two nurses for maternity and child welfare are being developed, but so far they have been found to be of limited value. Mothers and infants and older children attend, but not in the proportion which is said to be found in town areas. Midwives also attend to receive instruction and advice.

Hospital treatment is also provided for mothers and infants, but so far only a few cases have been so dealt with. In course of time it is hoped that a maternity hospital will be provided where arrangements can be made for the training of midwives. It is also suggested that in time a consultant will be attached to the medical staff to supervise the clinical work developed under the scheme.

In short, we hope that in all populous places throughout the Middle Ward a complete scheme will be provided on the lines laid down by the Local Government Board in their circular of 25th October last.

In the Lower Ward district, now a comparatively small area which surrounds the western boundaries of the city of Glasgow, the arrangements will be very much on the same lines. Two nurse health visitors are employed at present, one having been appointed in 1909.

Under the Midwives (Scotland) Act all health visitors have been appointed as assistant inspectors of midwives, and much good work is already being done. The preventable sickness and mortality connected with maternity is very considerable, and there is reason to hope that in time much benefit will be derived under this Act, which has been so long delayed, much to the regret of health officers.

In the Upper Ward district, where there is a large proportion of agricultural population, there are also several towns and villages with a large mining population. Arrangements are being made for

appointing a nurse health visitor to visit these industrial areas, but at present there seems little need for action in connection with the more rural parts of the district.

The objects to be attained by all this new development of maternity and child welfare work should be clearly kept in view. Much of the information that the Board requires in their circular above referred to deals with the curative and beneficent aspects of the work, which is commendable, but it is doubtful if these agencies will have much effect in reducing infant mortality. If the causes of infant deaths be carefully considered along with the detailed reports of the nurse health visitors it will at once be realised how difficult it is to reduce a high infant death-rate under the existing social conditions. Populations with high birth-rates in our mining and manufacturing districts are often badly housed, and in this connection I would emphasise the fact that it is not merely the size of the house and its construction that is at fault, but its situation and surroundings. Why is it that in agricultural communities we have low infant death-rates? It is not altogether because they have better houses in respect of size and construction. The whole environment is so different to that of a mining village or town.

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(4) (*c*) IN SMALLER TOWNS WHERE NO INSTITUTIONAL PROVISION EXISTS.

By Mr. D. W. KEMP, Convention of Royal Burghs.

Mr. Chairman, ladies and gentlemen, I was quite pleased to find that I was put down at the end of the forenoon programme, because I knew that, as Nature abhorred a vacuum, so do some of us abhor a vacuum somewhere else. Therefore I did not write a paper, and I am only going to give you a few thoughts suggested by certain statistics. What has impressed me on this question for many years is this, that, after all that has been done in local government and help during the last sixty years, we have really made no progress in the reduction of infantile mortality. Sixty years ago it was 125·2 per 1000, and in 1915 126 per 1000—actually 1 per 1000 greater than sixty years ago. During that interval of sixty years, of course, it went up and down yearly, if you keep in memory that about 125 per 1000 appears to have been the steady average for the whole period of sixty years. Now, what do we find now? What I

should like you to carry away from this interesting and large meeting of workers is to the smaller local authorities and smaller bodies in Scotland a sort of atmosphere of pressure, you might call it, to do something—to do a great deal more than they have done in the past. Now, I dare not take actual towns—therefore I will refer to the towns by number rather than by place names. For instance, we find a town in Scotland with between 3000 and 4000 inhabitants. While it so happens that I have taken these figures from the latest Registrar-General's return, yet every year is not the same; therefore I just give it for the sake of comparison. In this town I refer to they had 40 births, of which 15 died in the first year, which counted up, is equal to 375 to the 1000. Now, that is an enormous toll to take of one little community. If we could take perhaps the centre part of Glasgow, or any other large town with slums, we might find, as Dr. Williamson told us this morning, a higher rate, but in a smaller town with the population distributed well over a large area you would expect very much better conditions than 375 deaths per 1000 in the first year of life. Take another town with a population under 4000 inhabitants. In that town there were 63 births, and of these, 16 died in the first year of life, being equal to 250 per 1000. Again, in a small town with 12 births to 1200 inhabitants, 3 out of the twelve died in the first year of life, while another little town corresponding to it had no deaths at all with a similar number of births. What I want to bring out from these few figures, which I could enlarge upon quite easily from the Blue Books, is this fact, that the little local authorities must wake up to some provision for looking after the births that are notified to them in the first thirty-six hours. Now, what can they do? That is really a financial question to a large extent. In the town I come from, the town of Leith, 1d. in the £ raises £2000. In Edinburgh, I suppose, 1d. in the £ will raise £10,000. I suppose that in Glasgow 1d. in the £ will raise £25,000, or perhaps more, but in a little town 1d. in the £ sometimes only comes to between £10 and £20. You can quite see that the addition of 1d. in the £ in a small burgh is often regarded as a serious addition to the rates. What I want to try to encourage is this, that where there are a number of little burghs close together they should form themselves into groups, and have at least a highly qualified trained nurse under the medical officer of health of the county to look after the interests of children under five years of age. If I could get that as a sort of message from this Conference to carry back to the organisation to which I

have the honour to belong, the Convention of Royal Burghs—if I could carry the message from you that it is your wish that all local authorities should attempt to do something, not only to have received from Parliament the excellent bill called the Notification of Births (Extension) Act, 1915, but to put it into practice, as we heard from the Lord Provost, that is to do something. The large burghs are really beginning to do something. They are beginning to wake up. Although we have taken sixty years to wake up, still we are beginning to wake up, but I am afraid the little burghs will take sixty years longer to wake up unless some pressure is brought to bear upon them. Now, let that be your message to the local authorities in Scotland. (Applause.)

Discussion.

Bailie Smith (Coatbridge)—I am chairman of the Public Health Department of the burgh of Coatbridge. Well, Mr. Chairman, there is a question I would like to put to Dr. Williamson, the medical officer of the city of Edinburgh. My Town Council delegated to myself, in conjunction with the medical officer of health, to formulate a child welfare scheme. I asked permission to delay the formulation of such a scheme until after this Conference, because I anticipated that I would receive a considerable amount of guidance here. I have no intention to monopolise the meeting at all, but, with reference to a statement made by Dr. Williamson, he refers to the death-rate in the various wards of the city of Edinburgh. He states that in one ward there are 112 deaths, and in another ward there are 797 deaths. I am very much indebted to this chart that has been so ably prepared by Dr. Williamson, but I would just like to hear from the doctor the number of licensed premises that exist in the ward where there are 112 deaths among infants, and the number of licensed premises that exist in the ward where the deaths reach the huge total of 797.

Dr. Maxwell Williamson—Ladies and gentlemen, I am delighted to have this question put, because it gives me an opportunity of interlarding a sentence or two that I dared not have put in when reading my paper. I have worked this matter out. I cannot give you precisely the figures, because I have not got them with me, but I have worked out specially the relationship of the death-rate to the number of licences in the districts, and I wish you would take it from me that the death-rate is very largely proportionate—in almost exact proportion—to the number of licences that exist in particular districts. (Applause.)

A Delegate from Plymouth—I would like to ask Dr. Williamson, on the question of maternity homes in relation to the welfare scheme, what position he is in with reference to the emergency cases that occur, and also with regard to the duties confined to the voluntary workers?

Dr. Maxwell Williamson—There is a main maternity centre that, as I have said, is largely consultative. There are under the main maternity centre a number of subsidiary centres. These are what, in common language, we call "dispensaries." From these dispensaries there go out qualified doctors in order to attend, in the particular district where the

dispensary is, all cases of midwifery. We in Edinburgh are going to look to these different centres as being the places from which we can make perfectly sure that there will be qualified attendance on all the homes of the poor where midwifery cases are going to occur. With regard to the voluntary workers, they will through the day require to go through the different districts and make inquiries both with regard to any children and persons who are going to become mothers, and when they find either an ailing child or a person who is going to become a mother, then this voluntary or official visitor will give a card to the person and say, "That is the centre to which you must appeal for assistance."

A Delegate from Manchester—What becomes of the general practitioner under that system? How does he work in?

Dr. Maxwell Williamson—All through my paper I safeguarded the interests of the general practitioner. When I was describing the work to be carried out by voluntary and official visitors I said that when they arrived at a house the first inquiry they would make was whether the person residing there had a medical attendant of their own, and in that case they would be required to call in that medical attendant if necessary. If there was no medical attendant—if the persons were too poor to have one—the visitor would require then to direct them to the particular centre to which they might go for assistance.

A Delegate—We were greatly interested in what Dr. Hope, of Liverpool, said this morning. I would like to ask him, on the lines of the question of the licensed premises in Edinburgh in relation to the death-rate of infants, whether it is not the case that in Liverpool some interesting experiments have been made in the way of removing these licences, and that the lives of the infants have thereby been saved?

Dr. Hope—Liverpool's experiences are very similar to those of Edinburgh. Like Dr. Williamson, I am not able to give you exact figures and details, but, broadly speaking, the poorer the district the larger the number of licensed premises. In the great housing operations which have been one of the features of the sanitary work in Liverpool, in dealing with an insanitary area licensed premises have been included with the insanitary dwellings and swept away.

Mr. Robert Climie—Are we to take it from that that the housing conditions are responsible mainly for the high mortality?

Dr. Williamson—I think they act and react. I think the housing conditions have a very important bearing on public-houses, and public-houses have a very important bearing upon life. (Applause.) But of this fact I am certain, that the more public-houses exist in a district the more deaths we have got in that district among young children.

Bailie Smith (Coatbridge)—Mr. Chairman, I wish to put a question to Mr. Kemp. In his interesting speech in connection with the small places of 4000 population he told us that the infant mortality ranged from 250 to 350, while in other places of a rural nature the infantile mortality was practically nil. What I wish to know is this, were there any differences in those centres in the industrial and social conditions of the people?

Mr. Kemp—Not very much. No doubt there are some particular circumstances in both cases, but the contrasts are not very striking. What I want to bring out is that when there is a high death-rate it should be the subject of immediate inquiry, so that it might not occur the following year, if

possible. Unless some scheme is set up it will just go on on the principle that the mothers know everything, and that what they do not know they should apply to their grandmothers for.

Afternoon Sitting, 2.30 o'clock.

II.—THE PLACE OF MATERNITY AND SICK CHILDREN'S HOSPITALS AND DISPENSARIES IN THE SCHEME OF MEDICAL RELIEF.

(1) THE MATERNITY HOSPITAL IN RELATION TO MATERNITY CENTRES.

By J. HAIG FERGUSON, M.D., F.R.C.P.Edin., F.R.C.S.Edin., F.R.S.E., Deputy Chairman Central Midwives' Board (Scotland).

By an Extension Act of 1915 the local authorities have the power conferred on them to frame and carry out schemes for the preservation of the health and life of the mother during her maternity periods, and for the supervision over the life and health of children under five years, that being the period at which they are usually handed over to the continued care of the education authorities. Furthermore, the Notification of Births (Extension) Act, which became law on 1st September, 1915, was followed in December by the Midwives (Scotland) Act, which placed Scotland under the same conditions in respect to its midwives as England had been since 1902.

The first Notification of Births Act, passed in 1907, was only permissive in character, and therefore, although it was widely adopted and put in force in the large towns, and so became operative in respect of about 80 per cent. of the population, yet it left untouched large country areas, and, of course, no complete statistics could be founded on it.

The Extension Act of 1915 amended these insufficiencies, and now all over Great Britain each birth or still-birth taking place after the expiry of the twenty-eighth week of antenatal life must be notified. Though these enactments did not carry on the face of them any distinct indication of the change that they were to effect in the care of expectant mothers and their infants, nevertheless they cleared the way for the maternity service and child welfare which is the subject of discussion here.

It is obvious that any scheme to foster infant welfare must have

two sides. It must look to the mother before the birth of her child, and it must care for the child after its birth. There is no real difference between the two plans, still less is there any opposition. In each case one is dealing with the infant through its environment. Before birth the environment of the infant is the mother, and by caring for her one is caring for the child. After birth the surroundings of the child are wider, including as they do the air it breathes, the food it swallows, the handling it receives, and the germs of disease which may come in contact with it. We are therefore justified in speaking of the antenatal and postnatal sides of infant welfare. From one point of view, that of prevention, these two sides are respectively embodied in maternity centres and in infant health centres. From another point of view, that of correction or cure, they materialise in maternity and sick children's hospitals.

It must be admitted that in every community there is an enormous sacrifice of child life which, by the adoption of care and preventive measures, could be very materially reduced, and at no time is the position more urgent than at the present, when the very flower of our manhood is engaged in the most stupendous war in the world's history. Therefore any plea that can be urged for the preservation of the lives of children should be particularly welcome and opportune now.

No more striking statement regarding infantile mortality has been made than by Alderman Benjamin Broadbent, an ex-Mayor of Huddersfield, who deserves the thanks of the profession and the public for his philanthropic work in this direction. Mr. Broadbent's statement in a recent issue of the *Times* is as follows:—"In 1905 the output of new human life in the United Kingdom was approximately 1,100,000 babies. The survivors of these are ten years old this year; they have reached what may be called the half-way house to manhood and womanhood, and they are out of the danger zone. We know roughly what has happened to them in the mass. We know very well that there are nothing like 1,100,000 of them alive to-day. About 140,000 died before they were a year old, and as many more died before the survivors were five years old. Out of the 1,100,000 that were launched on the sea of life there were not many more than 820,000 that reached the comparatively safe water of five years old; nearly 300,000 wrecked, decimated thrice over. What should we think of 280,000 casualties, all fatal, out of

1,100,000? And what of the uncounted wounded? Between five years and ten years the numbers are probably not materially diminished. But of the 820,000 that remain a sad number are maimed and deteriorated. They will never make sound and healthy men and women; some are blind, some are crippled, some mentally defective. Out of the baby crop of 1905 we are pretty certain that 280,000 are lost, and probably at least 30,000 more are deteriorated. The question inevitably forces itself—Was all this waste of human life and health really inevitable? Could not something have been done to preserve in life and health some of the 300,000?"

This is a very striking presentation of facts, but, in addition, we must remember that the decline in the birth-rate began in this country forty years ago, has continued progressively down to the present time in every class.

Whatever the opinion may be with regard to the deliberate limitation of the family, there can be no question as to the fact of the diminution in childbirth, and therefore it is all the more important that we should try to preserve the existing numbers.

Within comparatively recent years special attention has been paid to the question of prenatal hygiene, to the safety of the mother, and the consequent safety of the child during pregnancy. Though the loss of children during the first year of infant life is enormous, yet the prenatal mortality must be as great, if not greater. It is well to formulate what this antenatal care means. It means—

1. Making proper examination of women some weeks before confinement (when possible, some months before) to decide whether normal delivery is possible or likely, and to give such medical advice as may be indicated for the comfort and safety of all pregnant women, and in particular when hospital care and operation are necessary.

2. Visits from a trained visiting nurse, and reports to the physician during the course of pregnancy; instructing the mother and father in the hygiene of pregnancy, and in making the best possible preparation in the home for the sake of the coming child.

3. Expert medical care at confinement, to minimise the risk of delivery to mother and child.

4. Frequent visits from the nurse during the two weeks or so following confinement, to provide needed bedside care to the mother, and giving the baby the best start possible.

Pregnancy or antenatal care is *preventive medicine* as applied to

obstetrics. What might this antenatal care accomplish? First of all, pregnancy clinics for prenatal care will grow and be accepted by the people, and teach them the value of prenatal care. Thirty per cent. of pregnancies show some abnormality, such as toxæmia, contracted pelves, antepartum hæmorrhage, and cardiac disease. Prenatal care anticipates and prevents many of these, and also reduces still-births.

Of the value of this prenatal care very striking statistics are at one's disposal. Many instances are available. Let me mention two—

First. If, as has been said, "infant mortality" is the most sensitive index of the civilisation of any locality, then the most civilised place is not in Great Britain, Europe, or America, but in New Zealand, for it has an infant death-rate of 51 per 1000, while the city of Dunedin has an infant death-rate of 38. This has been accomplished in New Zealand by means of a New Zealand Society and its public health nurses. Dr. Truby King, who is at the head of the department, attributes this remarkable result less to the pure milk—which represents a small part of the improvement—than to the teaching of mothers prenatally and postnatally.

Second. Davis, in the last number of the *Boston Surgical Journal*, draws a comparison between those cases in the city of Boston amongst the poorer working classes who have had prenatal care and those who have not, the prenatal care consisting of advice from a qualified doctor, of visits from trained nurses, and appropriate expert care at confinement.

How far are the reductions in the death-rate indicated by this study due to prenatal work? Davis makes a very significant remark, namely, that the lower death-rates during the first week and first month of life are not due to postnatal care given by milk stations or other agencies, inasmuch as these never reach the babies until later on.

But it seems to me another question arises, namely, whether or not there is a possible fallacy in this, because those mothers who take the fullest advantage of the antenatal clinics will probably be of better intelligence, and probably better able to appreciate them. But in the cases quoted by Dr. Davis he distinctly states that the economical conditions of the homes were very similar and were not favourable to a low infant death-rate.

Dr. Davis found, for example, that in 1914 the death-rate amongst

the cases which had received prenatal care between the ages of one month and one year was only 20·2 per 1000, while amongst the babies of the same ward not receiving prenatal care the death-rate between the ages of one month and one year was 62·8 per cent.

The following conclusions from the Boston figures are quite justifiable:—

1. A comparison of the death-rates of 731 babies whose mothers received prenatal care in five wards of the city of Boston during two years, 1914-15, shows that the death-rates were reduced to one-half or one-third of those found among babies not receiving prenatal care in these wards during the same years.

2. This reduction is found among babies during the first week of life, during the first month of life, and during the first year of life, taken as a whole.

3. The proportion of still-births in each year was only half that among the general population.

4. As it is known that only a small proportion of these babies receive any other organised medical or nursing supervision, the reduction in the death-rate is apparently to be attributed to the prenatal work.

Crichton Browne says doctors' babies die at the rate of 40 per 1000 in the first year of life, whereas miners' babies die at the rate of 160 per 1000—surely a pregnant fact.

A child or infant health centre ought to be placed in a densely populated part of the city where also the infant death-rate is high. In the city of Edinburgh the four centres are admirably situated for this work. There the mothers take their infants and have them examined by the qualified doctor and nurse, who only constitute the entire staff. Advice is given as to feeding, clothing, bathing, &c., and in the case of illness advice is offered as well. Of course there is an obvious difference between an infant health centre and an institution for treating antenatal disease, and if a child brought to one of these health centres should be found to be suffering from some disease, the mother would be given a card to take the child to some dispensary or hospital. The health centres are, it will be understood, preventive institutions, curative means being found at the dispensaries or hospitals.

The time limit will not permit me to extend my remarks longer, but I cannot close this short paper without asking your particular attention to the elaborate and interesting report of the medical officer

of health for Edinburgh, along with the statistical tables appended to it.

By MURDOCH CAMERON, M.D., Regius Professor of Midwifery and Diseases of Women, University, Glasgow.

The history and growth of midwifery practice and teaching in Glasgow is one that might well take up a longer period of time than that allowed to me on this occasion. Yet a few words on such a subject should form a needful preface to the subject before us to-day, namely, "The Maternity Hospital in Relation to Maternity Centres."

As far back as 4th April, 1589, "a woman was summoned before the Presbytery to answer for her profession to be a midwife who has not been known within the town and city of Glasgow to the inhabitants there, and to underly the censure of the Kirk according to her deserts."

At the present time such a case would come under the notice of the Certificated Midwives' Board for Scotland.

Before the foundation of the Chair of Midwifery in Glasgow University some attempt was made to train midwives, as we learn from advertisements in the newspapers of 1759 and 1778.

The following curious notice appeared in 1778:—"Midwifery.—James Monteith, surgeon, proposes on Thursday, the 26th March, to begin a course of lectures on the theory and practice of midwifery, to which will be added a set of lectures on the diseases of women and children, observations on inoculation, &c. Inquire at his shop, middle of Stockwell Street, or his lodgings, Miss Semple's, New Street. At a separate hour attendance will be given for the instruction of women in the practice of midwifery."

In 1790 the Faculty of the College appointed Mr. James Towers to be Lecturer on Midwifery, and twenty-five years later, when the Chair was founded by George III., he was appointed the first professor. For clinical purposes he had instituted in 1791 a lying-in hospital, which received a yearly grant of ten guineas from the Town Council.

His son John succeeded him in the Chair, and he must have continued the clinical work in the hospital, as mention is made of it, having had 110 cases in 1836, and at the dispensary 935 patients, during Professor William Cummins' term of office. Later it was continued as the University Lying-in Hospital for attendance upon the poor at their own homes, and for many years I acted as physician

accoucheur, and superintended the students and midwives when taking their cases. The service was unpaid, but the experience thus obtained was beyond value. In due time it was discontinued, and the funds went to establish beds for diseases of women in the Western Infirmary.

The Glasgow Maternity Hospital was begun in 1834, and after various changes a villa was got at the corner of North Portland Street and Rottenrow. The house was not suitable for such an institution, and this, combined with other causes of a septic character, led to frequent outbreaks of puerperal fever, when the hospital had to be closed at intervals. The nature of such outbreaks was not recognised till Semmelweiss, of Vienna, became convinced that the sole cause was sepsis. He was convinced of this through the death of a colleague from blood poisoning. He then began the practice of asepsis, and had the happiness to find that instead of a death-rate of 11 per cent. it fell to less than 2 per cent.

Following Lister's practice, strict asepsis and antisepsis became the rule in every hospital and amongst practitioners.

The old building in North Portland Street was removed and a new hospital erected on its site in 1881. Owing to the great increase in the population, and the poor recognising the great benefit of such a hospital, after a quarter of a century it was found quite inadequate, but, with the aid of generous benefactors, Glasgow is now possessed of the best-equipped maternity hospital in the Empire. Notwithstanding, I look back on the old hospital with fondness, for it was there that the pioneer work of Cæsarean section was carried out, an operation that has been the means of saving the lives of many mothers and infants.

Besides the practical instruction to students and nurses, the hospital also affords those already qualified an opportunity for post-graduate study, as well as residence for both men and women students.

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(1) (*a*) THE CAUSES OF STILL-BIRTH.

By J. M. MUNRO KERR, M.D., Professor of Obstetrics and Gynæcology, Glasgow University; Obstetric Surgeon, Maternity Hospital; Gynæcological Surgeon, Royal Infirmary, Glasgow; Hon. Fellow, American Gynæcological Society.

As the time at my disposal is so short and the subject so extensive, I propose to read this communication which I have condensed to the

lowest possible limit. As you will observe, I speak quite frankly about causes—the time for keeping secret about many matters that are here discussed has passed, and it is a great blessing that it has passed, for now we can all work together and effect many improvements in the present unsatisfactory condition of affairs.

Professor Cameron and Dr. Haig Ferguson have indicated the work and scope of a modern maternity hospital and its relation to the general practitioner, maternity centres, infant clinics, &c. The duty that falls upon me is to bring to your notice the question of still-births.

I do not wish to burden my address with statistics, but I must give a few figures. The number of still-births in Glasgow in 1914 was 1336; in 1915, 1178.

Now, still-births arise in two ways—(*a*) as a result of diseases and complications of pregnancy; (*b*) as the result of complications during parturition.

The lay public have in the past imagined that this last factor is the more important, but, as a matter of fact, diseases and complications of pregnancy account for infinitely more deaths. Let me illustrate this. In the Royal Glasgow Maternity and Women's Hospital in the indoor department during the last three months (December, 1916, to February, 1917, inclusive) there were 312 deliveries. Of these cases there were 56 children born dead. Of these dead children, 63 per cent. died as a result of diseases and complications of pregnancy and 42 per cent. as a result of complication of labour (5 cases of twins).

But that is not the whole story—a large number of children die in the first few days after birth. They are, of course, not still-births, but they are children lost to the State. Now, examining the results of the hospital for the same three months, you will find this—of the children born alive 23 died within the first ten days, and of these 78 per cent. died as a result of diseases and complications of pregnancy, and only 22 per cent. as a result of complication during birth.

This, I am sure, you must admit is a very sad and unsatisfactory state of matters, but it is particularly sad and unsatisfactory, because, to a very large extent indeed, it need not occur. To a very large extent (I am not prepared to state exact figures, but it is certainly not less than 80 per cent) this enormous infant death toll is preventable, and what is equally true, a very large proportion of the associated maternal deaths is preventable.

Diseases and Complications of Pregnancy.

Now, what are the causes for this enormous wastage of infant lives, and, mark you, I am not dealing with miscarriages (in that same period of three months there were 60 miscarriages dealt with).

1. There is a group of diseases which we obstetricians term at the present time "toxæmias of pregnancy." In this group we include such conditions as eclampsia or convulsions, albumen in the urine, pernicious vomiting, jaundice, and a number of other complications to which I need not refer.

All these complications begin very insidiously and probably at a very early stage of pregnancy; personally, I believe they commence in the early weeks of pregnancy. They result from poisons generated in the system of the pregnant woman; and they are cumulative poisons, because, unless means are taken by suitable diet and medicines, &c., to stop the manufacture and get rid of the poisons, they are stored up in the tissues, and gradually the pregnant woman becomes more and more poisoned.

Now, you will naturally ask in what percentage of cases are these poisons the cause of still-births. Well, taking the three months I have already referred to, out of the 79 cases of still-births and deaths of infants shortly after birth, I find that 44, viz., 56 per cent., can definitely be attributed to these poisons of pregnancy. I have no doubt the percentage is decidedly higher, but I cannot definitely say how much higher, and so I leave it at that figure; and it is bad enough.

But, bad as the position is, it is not hopeless, because—and this I wish to state definitely—the majority of these grave complications of pregnancy, these toxæmias, can be prevented if pregnant women are carefully looked after and suitably treated during the pregnancy. Let me illustrate this by taking one particular complication, viz., eclampsia or convulsions during pregnancy.

Taking the statistics of the Glasgow Maternity Hospital for the last five years, there were 339 cases of this complication; of these, 87 mothers and 225 infants died.

Now, if you take at the other extreme patients of the comfortable and wealthy classes who can afford to have the very best medical attendance—skilled obstetric specialists and very careful and able practitioners—you find that eclampsia or convulsions very seldom occurs. Here are my own figures—During the twenty odd years that I have been engaged in obstetric practice, of the hundreds of

cases that have been under my care and where the patients came to me within five months of the commencement of their pregnancy (I am, of course, not speaking of the cases seen in consultation), I have had only one case of convulsions—I have had many cases where I have had to treat the patient for minor disturbances, which, if allowed to run uncontrolled, would have certainly developed into eclampsia; but I have had only one case of convulsions. Now, I am perfectly certain that my colleagues here on this platform, other obstetric specialists, and careful medical practitioners, who have the care of their patients from the early months of pregnancy, could give you just as satisfactory results. I spoke to one the other day, who said she had never had a case of eclamptic convulsions amongst her own private patients. The position, then, is this, that as you pass down the social scale from the leisured and wealthy class to the poor and destitute, eclampsia or convulsions is more frequently encountered, and to a very large extent the same applies to the other toxæmias of pregnancy. We may sum up the matter in this way—the frequency and seriousness of the toxæmias of pregnancy, with their high maternal and child death-rates, are in inverse ratio to the care and attention given to patients during pregnancy. No one can question this—it is an established fact.

But the prospect is full of hope; already we can see the dawn of a brighter day. Nothing greater has been secured for this country in our generation—I refer only, of course, to the results in the peaceful struggle for securing a healthier world—than the welding together of the medical and social agencies concerned with the care of the prospective mother, mother in childbed, and young infant, and this has taken place in the last year or two, and was consummated in the Notification of Births Act.

2. *Disease of the womb and other female organs of reproduction.*—This is not a matter I can discuss here; it entirely concerns medical practitioners and gynæcological specialists. We are ever trying to reduce to a minimum this causative factor of still-births. It is responsible for many of the complications of pregnancy and parturition, and it is a very important cause of miscarriages.

But here, again, we are full of hopefulness, for we know that most of the disturbances coming under this group can be lessened if parturition is carefully managed, and especially if septic infection is prevented.

3. *Syphilis.*—The importance of this dreadful poison as a cause of infant death I cannot express in figures. My senior University

assistant—Dr. Louise M'Ilroy—was engaged in this very subject when the war broke out. She showed me a few figures—they were very terrible, but as the investigation had only begun, I do not propose to mention them; as a matter of fact, I cannot recollect them exactly. Nothing is more fatal to a case than to overstate it, and so at the present time I would only say this, that a very large number of the still-births and deaths in the early days of infancy result from syphilis. Fortunately, the effects of the other venereal diseases to mother and infant during pregnancy, labour, and the days following labour—what we call the puerperium—can be combated, and have been largely shorn of their terrors. Take, for example, ophthalmia neonatorum, now a notifiable disease, which, until recently, destroyed the eyesight of thousands of children.

When I was referring to the toxæmias of pregnancy I stated that they were more frequent the lower down the social scale one passed. To a certain extent this, too, is true in regard to the syphilitic poison, but, unfortunately, syphilis is present in all classes of society. On several occasions I have attended women, high in the social scale, who had everything the world could give them, but who time and again had miscarriages or dead-born children, and that in spite of the most thorough antisyphilitic treatment. Such cases are not now very common, for antisyphilitic treatment gives more satisfactory results.

But it is a terrible story when you come down to the poor and destitute—you know these nomads, the miscalled gypsies—these tinkers that one sees wandering about the country. Well, Dr. Watson some years ago examined a number of this class, and he found that every one of these individuals was syphilitic—men, women, and children—not one did he find free of this taint.

You see from the press that this subject—the dealing with syphilis and kindred ailments—is engaging the attention of the medical profession, sociologists, and legislators. Sir Francis Champneys dealt with this very subject last night. I am sure many of you listened with interest to his most admirable discourse. It is a most difficult problem—the most difficult the public health authorities have to face—for to them this problem should be entrusted. Think of what they have done. They have practically stamped out typhus fever; enteric is much less prevalent; consumption some day, I believe, will be literally stamped out; and now, with the powers they have under the Notification of Births Act, they will in time, with your assistance and the assistance of obstetricians, relieve the

expectant mother of many of the complications of pregnancy, and prevent many of the disasters of childbirth and early infancy. But who can say how they are to deal with the terrible scourge of syphilis and associated ailments?

Through notification, typhus, enteric, consumption, ophthalmia neonatorum, and other infectious diseases have been reduced, and through notification, or, as I prefer to call it, "intimation" of pregnancy on the lines I indicated some years ago, where secrecy will be respected and the feeling of modesty of the expectant mother will be respected, on these lines I feel convinced the complications of pregnancy will be immensely diminished and the majority of the serious complications of parturition removed. Some believe this intimation of pregnancy will not be necessary. I do not believe that —the people of the highways and hedges must be compelled to come in.

But with all these infectious diseases and with pregnancy the condition cannot be concealed. Sooner or later the individual suffering from enteric and typhus will have to seek advice, and the expectant mother must go into labour. But the poor syphilitics or otherwise affected—for amongst many of them there must be terrible mental as well as bodily suffering—can go on, and do go on, concealing the disease, a danger to themselves and a danger to the community.

4. *Alcohol.*—If one feels very strongly about a controversial subject, such as the use of alcohol, it is very difficult to take up a quiet and absolutely balanced view regarding the effect of this substance. You see I do not call it a poison, for it is only a poison if taken in excess, just as, although not to the same extent, many substances that we employ as foods are poisons if taken in excess.

It is particularly unfortunate when scientific medical men—some of them distinguished medical men—overstate their case, and drag in pseudo-scientific and unconfirmed observations in support of their views.

Obviously it is not possible to enter into details regarding this all-important aspect of the subject. I shall content myself by simply making the following statements:—

1. Confirmed female inebriates who are allowed to continue their drinking habits during pregnancy are prone to have miscarriages, still-births, delicate and mentally defective children.

2. It has been shown by Sullivan that if these inebriates are prevented from obtaining alcohol during pregnancy living and healthy children are frequently secured.

3. There is distinct evidence that excessive use of alcohol by the mother during pregnancy, even although she cannot be termed a drunkard, has an injurious effect on the child.

4. There is no evidence that alcohol ever benefits a woman during pregnancy, unless it is used under medical direction for some specific reason.

5. There is absolutely no evidence that small quantities of alcohol used during pregnancy have any injurious effect upon mother or child.

My conclusion is, and I am sure my distinguished colleagues on the platform support me, that we ask all pregnant women to abstain from the use of alcohol during pregnancy, unless the doctor in attendance considers it necessary to prescribe a small quantity as a medicine.

Did time permit it would be possible for me to refer to other conditions, such as accidents, overstrain (mental and bodily), which injuriously affect the expectant mother and child. Fortunately, however, the omitted causes are relatively of little importance, for the four I have mentioned—toxæmias of pregnancy, disease of the uterus, syphilis, and alcohol—account for more than 80 per cent. of the infant deaths. Nearly all of these deaths are preventable; every obstetric surgeon is agreed upon that. Now that all interested lay agencies, public health authorities, maternity institutions, obstetricians, medical practitioners, nurses, and health visitors have been united by the Notification of Births Act, we should see in a very short time indeed a marked improvement. But let me give this warning. This cutting down of the mortality amongst the preventable deaths to the vanishing point will be difficult—very difficult. You will easily reduce the mortality by 20 per cent. or 30 per cent. or 50 per cent. with the co-operative action between the different agencies already referred to. We must not forget, however, that there is a large public to deal with, and this public may be divided into two classes—those who are willing to co-operate and those who are not. Many individuals of the latter body may be educated to co-operate, but there will always remain a larger body ignorant, selfish, indifferent, indolent—that body you will have to compel to co-operate with you. Of that I am convinced, and you will have to make arrangements for just such compulsion.

Still-Births—The Result of Difficulties During Labour.

I have left myself very little time to consider this second group of cases, but there is just time for me to indicate how we obstetricians can improve matters if you and the public health authorities, &c., will give us your assistance.

During the three months in the indoor department of the Glasgow Maternity Hospital—from December, 1916, to February, 1917, inclusive—the same three months already referred to, there were 25 children who died simply and solely as a result of difficulties and complications of labour. It would be quite out of place to enumerate these difficulties and complications, but they may be divided into two groups—(1) Complications over which we have no control; (2) complications which, if recognised and sent to the hospital early, could have been dealt with and the children saved.

Examining these cases I find that 7 belonged to the first and 14 to the second. I believe one really could have stated it that 5 belonged to the first and 16 to the second; but I do not wish to exaggerate—I am anxious rather to understate my case. This reduced to percentages gives the following:—More than 66 per cent. of children that died during labour might be saved if the mothers were carefully examined, supervised, and treated during the later weeks of pregnancy and labour. Some may say these figures are very small, but time and again I have gone over different months, different years of the Maternity Hospital's great work, with its thousands of cases per annum, and the results are similar. I do not say the figures are always absolutely as I have given them for the past few months; they are sometimes a little higher, sometimes a little lower, but the variations are negligible.

Do you see, then, what can be done? If the nation will insist that all women in pregnancy and labour are placed under favourable conditions and suitable supervision we obstetricians and doctors and nurses will reduce the number of still-births, the results of the diseases of pregnancy, by somewhere about 90 per cent., and the deaths occurring during parturition by 65 per cent. at least, and in the process of doing that we will save many hundreds—yes, thousands of mothers.

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(2) HOSPITALS FOR SICK CHILDREN.

By C. K. AITKEN, Esq., Chairman, Royal Hospital for Sick Children, Glasgow.

The first hospital for sick children in Glasgow was built in 1882, contained three wards, and in 1887 a fourth was added, bringing the total number of cots to seventy-four.

In 1888 the out-patient department or dispensary was built, and in 1903, by the generosity of a lady, the country branch at Drum-

chapel, containing twenty-six cots, was opened. That was the position in 1903, but it soon became apparent that the hospital was not large or efficient enough to carry on the work for which it was instituted. The population in and around Glasgow had increased enormously, and we were only able to take in a small proportion of the patients from our own dispensary and the country and towns in the West of Scotland.

The directors decided to appeal to the citizens of Glasgow and West of Scotland for funds to build a new hospital to contain from two hundred to three hundred cots. That appeal was eminently successful, and the directors were satisfied that they could proceed. The first question was the site. Fresh country air is no doubt most desirable, but for patients, doctors, and students it is necessary that the hospital should be near and easy of access, and so it was decided to build in town. After visiting several places, the directors purchased a large piece of ground at Yorkhill, 16 to 18 acres, so as to build a hospital on the pavilion system, viz., in blocks widely apart, so as to avoid infection in case of fever, &c., and placed so as to admit the maximum of sunshine to the wards. While the directors' intention is that the hospital should ultimately contain three hundred cots, we have only built blocks sufficient for two hundred and ten cots. Provision has been made for the necessary extension both for patients and staff. The kitchen and laundry, &c., have been built for three hundred. The directors at first appealed for £100,000, but we soon realised this was not nearly sufficient. The work was begun in spring of 1911, and completed in 1914. Cost of site, £16,000; digging, £8000; architects and measurers, near £10,000.

Plan of Hospital.

The nurses' home, &c., is in a block by itself, and is connected by a conservatory with the kitchen and servants' rooms and nurses' and residents' dining-rooms.

To the south and west are the wards. The largest block, consisting of six wards, is of three storeys. The other blocks are of two storeys, with covered balcony to each ward, and the roofs of the buildings constructed for children who can be in the open air all day.

The laundry and pathological department are in separate buildings.

The directors regret that owing to the war they were unable to erect the milk sterilising plant.

No money has been spent on decoration, but the internal arrangements are of the latest and best.

The hospital was opened by King George and Queen Mary on 7th July, 1914, but war with Germany was declared in August (four weeks after), and the hospital has never been in full occupation as a children's hospital, four wards, or one hundred beds, being occupied by sick or wounded officers, 686 of whom were treated last year.

Objects of the Institution.

1. The medical and surgical treatment of poor children suffering from non-infectious diseases.

(*a*) 2249 children were treated in the wards last year, of whom 674 were infants under one year and 396 over one and under two years. In normal times we estimate we should be able to treat in present hospital 5000 children every year.

(*b*) In the dispensary—Medical cases, - - - -	7,849
Surgical cases, - - - -	5,402
Total new cases, - - -	13,251
Subsequent attendances, - -	36,079
	49,330

In addition, the sisters and nurses paid 1006 visits to 546 patients in their own homes.

(*c*) In country branch 176 patients treated. The largest number of cases treated in hospital, dispensary, and country branch consist of malnutrition, hernia, marasmus, rickets, hare-lip and cleft palate, pneumonia, tuberculosis.

2. The advancement and diffusion of medical science with reference to children's diseases.

In addition to the work of the chief medical and surgical staffs at the hospital and dispensary, an increasing number of medical students have been attending lectures and clinics of physicians and surgeons at hospital, and also dispensary, whereas formerly attendance on such a course of training was optional. About four years ago the Scottish Universities, by one of their ordinances, made it compulsory for medical students to attend certain special courses of lectures and clinical instruction on the medical and surgical diseases of children.

The lectures and clinical instruction given at Yorkhill are fully recognised by the Glasgow University Court as satisfying the provisions on the above matter and on other parts of a medical student's curriculum as set forth in the medical ordinances.

Splendid work has been done by our physicians and surgeons who are at home, and also our trained nurses, although we have much difficulty in keeping our staff.

3. Training of Nurses for Sick Children.—Besides the training which nurses get in their daily work, lectures are given by the physicians and surgeons, and also by the matron. A certificate is given to qualified nurses for care of expectant mothers and children up to five.

With regard to the Maternity and Care of Children under Five Years Act, the directors are much in sympathy, and will do all in their power to help in its administration.

I have seen it stated that in this country children under six years form one-seventh of the whole population. If this is the case how necessary is this Act.

By R. F. BARCLAY, Esq., Hon. Secretary and Director, Royal Hospital for Sick Children, Glasgow.

In considering schemes and agencies in circumstances in connection with infantile mortality, it is of paramount importance to keep fully in view (1) that the object aimed at is the material reduction in the infantile death-rate, which in Scotland is 126·5 per 1000 births before the completion of the first year of life; (2) that prevention is better than cure, and that therefore the primary object should be to prevent disease rather than to cure it; and (3) that medical agencies of any kind, including children's hospitals, can only indirectly aid this primary and vitally important work of prevention.

It is a remarkable fact that this country, and doubtless others as well, forgetful of the fact that a nation's strength is its man-power, has thought fit in the past to pay far more attention and give far more encouragement to the breeding of horses, cattle, sheep, &c., than it has to the breeding of healthy human beings, and there is no manner of doubt that bankruptcy would stare any agriculturist in the face who had anything approaching the infantile death-rate among the young of his domestic animals.

The position is that, owing to the conditions which the Government and the community have allowed to subsist, somewhere about 280,000 children are born in Great Britain every year, only to die before they are five years old, and that one-half of that number fail to survive even the first year of life, and further, that in

addition there is a vast number who are maimed and incapacitated for the battle of life. The problem is to find the cause of the evil and the remedy. I am convinced that the considerations involved in this matter of disease and death are not mainly medical or surgical, as might at first be supposed, but go to the very roots of our social life, and that if the saving of tens of thousands every year from death in earliest infancy or from a childhood of weakness and suffering resulting in premature death is to be accomplished the solution must be sought there.

Now, what are the primary conditions which are essential to the propagation and rearing of a strong and healthy progeny? I think they may be stated thus—

(1) Healthy parents,
(2) Healthy environment or home conditions,
(3) Wholesome and sufficient food, and
(4) The means of getting exercise and fresh air.

It is not my province to-day to develop these themes, but I should like to be allowed just to make a few comments thereon.

Healthy Parents.—The disastrous results on the children of intemperance on the part of the parents is common knowledge. What is the community doing to check that fertile source of infantile disease and mortality? Again, we are told that 10 per cent. of the population is infected with syphilis and a much larger proportion with gonorrhœa. How is it that only now the Government is taking this matter up, and, unfortunately, in a way that deals with the cure rather than the prevention of the disease, though the main source of infection is well known? Further, if the child is a national asset, surely some provision might be made for the health of mothers who are poor shortly before and shortly after childbirth. It is a mockery to prescribe what the mother cannot get.

Housing.—Statistics everywhere show that where human beings are crowded together in slums with the usual accompaniment of poverty, squalor, and dirt, and in high tenement houses, the death rate, and particularly the infantile death-rate, inevitably rises very materially. In Glasgow 12 per cent. of the population live in one-roomed houses, and 49 per cent., or nearly half the total, in two-roomed houses. The general death-rate in the wards of the city where these houses predominate averages about 20,000 per million as against 10,000 per million in districts where the housing is better. In the case of infants under one year the death-rate per thousand

births varies in the same way from an average of about 200 in congested districts to an average of about 50 in other districts. These figures clearly indicate the ruthless war the community should wage against the slum and congested tenement.

Food.—It has been abundantly proved that if a mother can and will breast-feed her baby it will survive and thrive amid the most adverse circumstances. Failing this, recourse must be had to cow's milk, and it is a lamentable fact that, so far as I have been able to ascertain, it is impossible in any district, at any price, to secure a supply of milk certified as clean and free from tubercle or deleterious germs. Such a commodity can be produced, but it is not on sale anywhere. About three years ago Dr. A. Philp Mitchell and Dr. Harold J. Stiles investigated exhaustively the conditions of the milk supply of Edinburgh, and the results thereof on young children. They proved that bovine tuberculosis can be communicated to human beings, particularly to young children up to five, and that 90 per cent. of the cases of tubercular glands in infants and young children is due to infection by bovine tubercle got through cow's milk. The position, therefore, is that the children of the community, even those already infected with tubercular disease, are being fed with milk which is not only possibly but probably infected. Butcher meat is subject to a strict inspection, but not so milk, which is a much more dangerous and readier carrier of disease.

As regards recreation and fresh air, is it right that the public street should be the playground of our poor children, and that while we spend vast sums on water supplies and drainage, the air should be polluted and death-dealing fogs created rather than force owners of factories to buy modern and coal-saving appliances?

I venture to draw attention to these considerations because of their vital importance, and because, in considering what medical agencies, and particularly children's hospitals, can do in this matter, it is equally important to keep in view what they cannot do. The problems of infantile mortality are more social and economic than medical, and if the efforts of medical agencies are mainly relied on to decrease the rate of infantile mortality, the result will be sadly disappointing, for the simple reason that the community is manufacturing weaklings faster than hospitals or dispensaries can cure them.

What, then, is the special sphere of children's hospitals? I submit it is a most important one for the community. They were

founded by generous and kind-hearted men and women to afford the best medical and surgical treatment to little children who are sick, and suffering, and poor, because it was felt that such cases would thus get special nursing and special attention, and that to treat many very little children in adult wards was not desirable or fair either to the adults or children. It is now recognised, however, that the modern children's hospital has other functions of not less importance, namely (1) the scientific study of diseases peculiar to infancy and childhood (the work of the laboratory being correlated with the work of the wards), by which study the early and correct diagnosis of these diseases will be facilitated, the source of the disease traced and a cure effected, and (2) the proper specialised teaching of medical students, which will in due course result in a true scientific knowledge of the treatment of children's diseases being disseminated over the whole country. To accomplish these objects a specialised children's hospital, attended by physicians and surgeons who are making a speciality of their subject, is essential.

Let me describe in a few words what is being done in the Children's Hospital in Glasgow. In the hospital itself, when the partial military occupation is over, about 5000 children all under twelve years of age will be treated in the cots every year. When the hospital was founded thirty-four years ago children under two were not supposed to be admitted. This rule was abandoned long ago—a sort of presage of the welfare of infants movement—and such has been the progress of medical and surgical science that of the children now treated 32 per cent. are under one year old and 18 per cent. between one and two years old; that is to say, 50 per cent. are under two years of age, a percentage which surely gives some idea of the urgency of the problem of infantile disease and the earnest way in which the Children's Hospital is dealing with the matter. Further, in the new hospital there is provision in cases where it is desirable for a nursing mother being admitted with her infant. As regards the medical and surgical visiting staff, the directors have stipulated that they must have specialised in their subjects, and will not hold any other hospital fixed appointments. In other words, they have to devote themselves to this work. In normal times each physician and surgeon will have attached to him one or more members of the dispensary staff for the purpose of conducting research. By the use of large balconies, flat roofs, and taking advantage of the grounds round

the hospital, the children will be enabled to get as much fresh air as possible, and arrangements have been made whereby, after war conditions have passed away, the hospital will have a first-class dairy, with plant for dealing with the milk, and a dietetic kitchen where special diets will be made up for individual patients, and the problems of infant feeding carefully studied; and further, what I consider of even greater importance, arrangements have been made whereby the hospital will be supplied with milk (1) from cows guaranteed free from tubercle; (2) chilled immediately after milking and before being enclosed in cans for transit, so as to prevent the growth of organisms which in the case of new, warm milk is extremely rapid; and (3) carefully safeguarded during transit. Then we have an excellently-equipped pathological and clinical laboratory under the charge of an experienced pathologist, and lastly, when the child is discharged from the hospital, if it is not sent to a convalescent home, it comes under the care of the almoner and her assistants, who endeavour to secure the child's continued improvement and welfare at home.

At the out-patient department 13,000 new cases, involving 50,000 attendances, are treated every year. Of these cases 5000 are surgical and 8000 medical, 27 per cent. are under one year, and 36 between one and three years old. Here again a considerable number of patients are visited at their own homes, and pamphlets are distributed dealing with the feeding and care of infants and various diseases.

Lastly, at the country branch a valuable work is done, so far as the accommodation of twenty-six cots will permit, among surgical cases which require prolonged treatment, such as hip-joint and tubercular cases.

It will thus be seen that, in addition to the practical work of the wards, it is the desire of the directors to give every facility to the expert physician or surgeon in the wards and the scientist in the laboratory to co-operate in their work. It is along these lines that medical and surgical progress has been made in the past and must be made in the future, and I submit that, if properly-equipped children's hospitals are thus made the centres of highly specialised and scientific investigation, the result to the community cannot fail to be far-reaching and of the highest benefit. The work of children's hospitals in the past has often been rather made light of as compared with the work of other hospitals, but its true significance and importance is now beginning to be realised.

I have referred to the teaching of medical students. It is scarcely credable that until two or three years ago a medical student could become fully qualified without having attended a clinic or lecture on children's diseases, though the diagnosis of disease in a sick child, which has no language but a cry, is ten times more difficult than in an adult. Over and over again former residents have told me how, when they became family practitioners and were called in by an anxious mother, they blessed the experience they had gained in the children's hospital. Now attendance on a course of training in children's diseases is very properly compulsory. The courses of lectures and clinical instruction given at the Children's Hospital in Glasgow are recognised by the University, and the number of students taking advantage thereof is yearly growing.

You are all familiar with the provisions of the Notification of Births Acts, 1907 and 1915. The magnitude of the work may be realised from the fact that, say, in the case of Glasgow there are nearly 30,000 children born every year; and the difficulty of inducing the mothers of these infants and the children up to five, or even a majority of them, to voluntarily allow themselves to be inspected, directed, and controlled is obvious.

The success or failure of the Act depends entirely on its administration. In large cities it will not be easy to make and keep that effective; in small towns and country districts it will be very difficult. It will not be made easier by the remarkable fact that at present the Treasury declines to give any grant to existing agencies for the help they may give in carrying out the objects of the Act, and also for hospital accommodation, which is absolutely essential to the efficiency of the scheme both as regards mothers and infants. To my mind the most important and far-reaching work under the scheme, so far as actually reducing the rate of infantile mortality is concerned, may be done by the health visitors, difficult though their work be.

How can children's hospitals most effectively help the work to be done under this scheme? I submit they can best do so by zealously pursuing the work I have above referred to, viz. :—

(1) By being the centres for the specialised scientific systematic study of the problems affecting the health and welfare of expectant mothers, nursing mothers, and infants.

(2) By making the results of this research work available to local authorities, medical practitioners, and students.

(3) By utilising their out-patient departments as special centres under the scheme where, in view of better equipment and staffing, the more difficult cases may be remitted by other centres for treatment; and

(4) By providing a certain amount of hospital accommodation for special cases requiring indoor treatment.

The cases admitted to children's hospitals in this way will almost necessarily be restricted to those requiring special investigation for some reason or other, for, as soon as the various centres become active (if the work is to be seriously tackled), large numbers of children will be discovered suffering from malnutrition owing to the parents' poverty, ignorance, carelessness, or intemperance, and from tubercular affections which will take months or years of treatment, and other such-like troubles. The parents in most of such instances will be found perfectly willing to be relieved of the care of their children; but such cases are not really hospital cases at all. They do not require hospital treatment except occasionally. They require food, rest, fresh air, and a decent home. Given these for a sufficient length of time, the marvellous recuperative power of childhood will do the rest.

Let the community institute social reforms on the lines I have indicated; let maternity and children's hospitals, while carrying on the ordinary work of the treatment of patients, devote attention to the careful scientific investigation of the problems of health and disease affecting young children; let the various agencies under the maternity and child welfare schemes efficiently and faithfully do their part; let all work seriously together with the one particular end in view, and then, but only then, will the present appalling waste of human life, worse and more wanton than the casualties of a battlefield, come to an end.

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(2) (*a*) SPECIAL WARDS FOR MALNUTRITION AND FEEDING CASES ONLY.

By Mrs. J. C. JOHNSTON, M.D., Hon. Secretary, Edinburgh Infant Health Centres.

In making a plea for special wards for malnutrition and feeding cases in infants and very young children, it is unnecessary for me to emphasise that extraordinary times demand extraordinary measures.

No more convincing proof of this could be offered than the fact that we are met here in conference upon measures of recent legislation which have been put before you.

We are ready now to admit that every life with the possibility of normal development is of such value that the duty of saving that life and ensuring that development has become a matter of public service. Before this paramount duty prejudices and traditions which have accumulated around hospital practice, time-honoured distinctions and limitations of service are bound to go down.

For the past two years the Edinburgh Hospital for Women has co-ordinated the work of its maternity department with a complete scheme of infant consultations and following up visiting by trained nurses. A small ward for malnutrition and early cases of unthriving bottle babies has been a part of the scheme. I may not take time to give details of our work, but will pass at once to certain conclusions based upon our experience.

Setting aside the question of the illegitimate baby, which is to be discussed later, and for whom, so far, the State has been a sorry stepfather, and setting aside, too, the baby born of a tuberculous mother, the primary desiderata of saving infant life rest upon the preservation of breast feeding and the proper initiation and conduct of bottle feeding where necessary. What is the attitude of maternity hospitals and hospitals for children to these absolute fundamentals?

Without wishing to appear hypercritical, I should say that their attitude is distinctly one of limited liability. The maternity hospital undoubtedly advocates breast feeding without devoting too much energy to its conservation in ordinary routine work, and the children's hospital is deeply interested in feeding during acute disease without denying that feeding in comparatively well babies and in chronics is dull and unprofitable from the specialist's point of view. Between these two lies the debatable land, as full of pitfalls and casualties as that other no man's land, and it often happens, as you will doubtless agree, that many a baby born in a maternity hospital or under the service of a hospital nurse appears at the children's hospital only in time to die, without ever having had a serious effort made to save its life by saving the breast milk.

How, then, is the claim of the baby to be brought home to the maternity hospital and the claim of the mother for timely help to be laid at the door of the children's hospital so as to avert disaster? Much is expected from the infant consultations springing up on every

hand, but the infant consultation cannot work miracles nor restore breast feeding if the infant is already on the bottle when brought to the consultation, nor can it save the babies that must have in-patient care.

Is it reasonable to expect a continuance of breast feeding when a primipara is sent out on the tenth day, in many cases the baby barely up to its birth weight, and the mother totally unable to cope with the certain effect of home-going and the ubiquitous neighbour or granny with her plentiful advice? It is not enough to tell that mother, or the mother of a baby born in the district, to come to the infant consultation if anything goes wrong, or to come at the end of the first month. Something goes wrong far too often, whether the mother knows it or not, and by the end of the first month the damage may have been done and breast feeding abandoned altogether, and the bottle come to stay.

The means of averting what is too often the tragedy of the first month, and the later marasmus with its heavy toll in the wards of children's hospitals are simple enough and not far to seek.

First, the convalescent ward for mother and baby attached to the maternity hospital, staffed by nurses with nursery training, and with a children's consultant; second, the small malnutrition ward in touch with the infant consultations, a sufficient number of them, so that every consultation has one in its own district, linked up with a central milk depot and laboratory. The first of these, the convalescent ward, made easily accessible to the primipara, should take the mother at the end of ten days for another ten days; the mother to have entire charge of her baby, and to be taught the importance of her own food by rotation service in the diet kitchen. In this ward there should be regular classes of instruction both in the care of the baby and in the mother's own diet and habits. Regularity and intervals of feeding would become established, and a familiarity with that routine which equally safeguards both the mother and child. Breast feeding in all its aspects would be the special subject of investigation in this ward.

The malnutrition ward, and there must be many of them, should be small, not more than six cots in a ward, preferably housed in the environment of the child's home. It should be run simply and with inexpensive equipment, so that the home-going for the child may not be a too violent contrast, and the mothers should be encouraged to come frequently to see for themselves exactly what is done. It

is our experience that mothers are keenly interested as to why the baby did not thrive at home and why it does thrive in our little ward. These wards should be staffed by the doctors in charge of the consultations at the centres—a general practitioner it may be, or a doctor seeking experience in children's work, the nurses to be nurses in training for district maternity work under a fully trained children's sister.

But, it will be objected, what about a wing for malnutrition cases at the children's hospital large enough to take them all, with wards divided by glass partitions, a perfectly even, draught-free temperature, and all the needful apparatus at hand for modern diagnosis? Such wards are certainly impressive and doubtless as effective, but the children's specialist has no great wish for them, while the younger practitioner, the maternity nurse, the mother, and all the workers at an infant centre who are nearest to the unthriving baby, stand in the direst need of the experience to be gained by simple surroundings at a comparatively small cost.

In some such way, it seems to us, maternity and infant work should be correlated. Nothing but a convalescent ward especially devoted to the conservation of breast feeding in a maternity hospital will ever impress the student with its relative importance and stem the facile prescription of the practitioner—put it on to Nestlé's. Nothing but a universal education in the care and feeding of malnutrition babies, including doctors, maternity and district nurses, and mothers, can meet the present conditions.

As I said at the beginning, extraordinary measures only fit these extraordinary times.

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(2) (*b*) THE CAUSES OF INFANTILE MORTALITY.

By LEONARD FINDLAY, M.D., D.Sc., Glasgow.

INFANTILE mortality is a subject which is always of profound national importance, but at the present moment is urgently so, not only on account of the great wastage of life consequent on the war, but also in view of the fact that the birth-rate continues steadily to decline. And as the wealth of a nation is truly represented by its children, there is little wonder that our economists and social workers are staggered at the prospect for the future, and are suggesting all sorts of measures to diminish the evil.

In consequence it has been decided by the Government to inaugurate through the agency of the Local Government Board and the health authorities antenatal and postnatal clinics, but it is exceedingly doubtful if the good that will accrue therefrom will be commensurate with the expense entailed. Professor Donald, of Manchester, has recently written to the *British Medical Journal* showing how little real progress in the study of antenatal mortality and in the knowledge of the diseases of the pregnant woman can be expected from these measures, and I am inclined to be equally pessimistic regarding the effect of the postnatal clinics and child welfare societies in seriously reducing the infantile death-rate. It would seem to be a much more complex question than is imagined, and to have its roots more deeply situated than can be touched by the proposed schemes.

During the past ten or fifteen years several municipalities have inaugurated schemes, *e.g.*, milk depots and infant clinics, with the hope of reducing the infantile mortality. A study of the infantile death-rates in towns where such measures have been adopted, *e.g.*, Liverpool, Bradford, Poplar, and Glasgow, does not support the contention that these methods are of much value in seriously decreasing the evil.

If one examines the infantile death-rates of England, Scotland, and Ireland generally, and of these various towns, it will be seen that about the year 1900 there set in all over the kingdom a decline in the death-rate, and that the various curves follow practically the same course, and are unaffected by the introduction of the measures above mentioned.

The medical officer of health of Liverpool in his annual report for 1914 speaks enthusiastically of the effects of the milk depot which was started in 1901. According to the figures in the report the depot did not become popular for some years, though the decline in the death-rate set in contemporaneously with the opening of the depot. In Glasgow a similar depot was opened in 1904, but the curve for this town shows, just as in Liverpool, a decline commencing in the year 1900, with no acceleration of the fall after 1904, and continuing till 1912, although the depot was abandoned in 1910. In Bradford there was started in 1912 an infant clinic, and certainly the infantile death-rate for that year shows a marked fall, but, as will be seen from the various above-mentioned curves, the death-rate all over the country for 1912 was the lowest ever recorded until that date.

The infantile death-rate curves of these above-mentioned towns and countries show a wonderful uniformity in their behaviour. In fact, it is most striking how in such widely separated towns as London and Glasgow the apices and dips of the curves coincide, so that one is hardly justified in ascribing any result, which is so general, in any individual town to the adoption of a particular measure.

Recently there appeared the following paragraph in the London correspondence column of the *Glasgow Herald* concerning the infant welfare scheme of Poplar:—

"It is remarkable and disappointing that in Poplar the death-rate" (infantile) "has continued to rise, and has gone up from 83 to 117 per 1000 ever since the inauguration of the baby-saving campaign. The chief lady health visitor is quite candid, admitting that the increase has come about despite the amount of money and energy spent by the various organisations working directly and indirectly for the preservation of infant life. She thinks that sometimes there is too much visiting, and observes, 'I myself was unfortunate enough to be the fifth to call on one mother, and the number of visitors who might call is positively staggering when you try to reckon them up.'"

The decline of the infantile death-rate during 1916 has been suggested as evidence that it is in great part a question of wages. This, of course, is an old idea, and one that has often been expressed, but a critical study of the available data shows how unwarranted such an assumption is.

After the declaration of war the death-rate at first rose, but during 1916 it fell considerably, and in most places has been the lowest ever recorded.

In 1915 the working and labouring classes were quite as prosperous, in fact their purchasing power was really greater (Miss Ferguson, Proc. Roy. Soc., Edin., vol. xxxvii., part 2, No. 8), so that the fall in 1916 is more probably due to some other factor, *e.g.*, a diminution in the severity of epidemics of such diseases as measles and whooping-cough. The importance of this factor is well exemplified in one town in the west of Scotland (Coatbridge), where, although, as in the west of Scotland generally, there has been increased prosperity the death-rate has increased. A survey of the death returns for this town shows that an epidemic of measles was the contributing factor, whereas in Scotland generally and in Glasgow particularly deaths from these diseases were during 1916 unusually few.

The unlikelihood of the wage element being a factor of any moment is supported by the fact that in times of famine and industrial trouble the infantile death-rate usually falls. During 1912, *e.g.*, the number of people involved in disputes causing stoppage of work and the aggregate duration of working days lost was the highest on record, and yet with the exception of 1916 the infantile mortality was the lowest ever recorded in most of the chief towns of Scotland and England.

During 1912 there was a prolonged coal strike. It commenced on 26th February, and by 4th March 1,000,000 workers were on strike and 1,000,000 idle in consequence. This strike was settled on 8th April. From 25th May till 10th August there was the Port of London strike ("Annual Register," 1912, new series).

In 1912 there was also the lock-out in cotton trade, which commenced in 1911. The coal strike of 1912 accounted for the loss of 30,000,000 working days ("Hazell Annual," 1914).

The importance of the zymotic diseases and their complications as a cause of death during the first year of life cannot be overestimated. For example, in 1914 23·6 per cent. of all the deaths under one year were due to measles, whooping-cough, and gastro-enteritis, and 18·4 per cent. were due to bronchitis and broncho-pneumonia, many cases of which were no doubt complications of these diseases.

When one plots out the death-rates from these various diseases of the sixteen chief towns of Scotland collectively, and Glasgow individually, this point will be demonstrated most strikingly. From these charts it will also be seen how the mortality from these various diseases may cause a variation in the general infantile death-rate. They also reveal a certain periodicity—especially with regard to gastro-enteritis. In the year 1912 the deaths from this cause were comparatively few; in 1913 they were more numerous; in 1914 they reached their maximum, and declined in 1915, and in 1916 rose again slightly. Whooping-cough will be found to recur every second year, and the curve of measles, while showing an annual increase in autumn and winter, it will be noted, behaves somewhat like gastro-enteritis.

Brownlee has frequently drawn attention to the periodicity of epidemics of the zymotic diseases, and therefore it is not surprising to find that there prevails a certain periodicity in the death-rates from these same diseases. One cannot expect, of course, the same mathematical accuracy in the curves of the death-rates, more

especially when these are limited to the case of children under one year, as in the curves referring to the incidence of the disease in the general population. Nevertheless the behaviour of the curves is so striking as to arrest one's attention and to warrant further attention. And, finally, should the law of periodicity of deaths from these causes during infancy be substantiated it will be necessary to consider this factor in any scheme for diminishing our infantile mortality. In this connection it is difficult to see how the institution of centres where large numbers of children aggregate can do otherwise than create foci for the dissemination of infectious disease in addition to these already afforded by schools.

A recent investigation on the etiology of rickets carried out in Glasgow under the auspices of the Medical Research Committee seems to indicate that among the most important determining factors are general hygienic—housing and overcrowding—with little opportunity for open-air life. This finding naturally suggests the bigger question in how far these same factors are also responsible for much of the infantile mortality. Rickets itself indirectly plays a part in a certain proportion of the infantile deaths, in so far as it increases not only the frequency, but also the mortality, of the respiratory sequelæ of such diseases as measles and whooping-cough.

A consideration of the housing conditions of the poorer classes lends support to the idea that they play a prominent rôle in the causation of infantile deaths. The mortality rate is higher in the town than in the country, *e.g.*, in 1913 it was for Scotland generally 110; for the sixteen largest towns, 125; and for the rural areas, 92; in 1914 the corresponding figures were 111, 124, and 92. The death-rate is highest in the most densely populated districts of the large towns, and higher in a city like Liverpool than in its industrial suburb, Port Sunlight.

	Liverpool.	Port Sunlight.
1911, - - - - -	154	52
1912, - - - - -	125	81
1913, - - - - -	132	104
1914, - - - - -	139	74
1915, - - - - -	133	101

It has been shown, too, how renovation of a slum area diminishes considerably the infantile death-rate. The following is a quotation from the report of the medical officer of health of Liverpool on the infant and welfare scheme for 1916, page 25:—"The work of the Corporation in clearing the slum areas has resulted in great benefit

not only to the general health of the population, but more particularly to that of infants and young children. The Housing Committee have erected nearly 3000 dwellings on sites formerly occupied by insanitary property, and these dwellings now house a population of 11,000 persons. It was shown at the inquiries relating to the general demolition of the houses that the general death-rate averaged nearly 40 per 1000, and the infantile mortality 300 per 1000 births. The people who were displaced now inhabit the dwellings erected by the Corporation, and the general death-rate of the population of these dwellings has been reduced to 28 per 1000 and the infantile mortality rate to 167 per 1000 births."

It thus hardly seems likely that any number of visits to infant clinics will ameliorate the health of the infant so long as it has to spend its time in unhygienic surroundings. This is well exemplified in hospital practice. Not infrequently children are admitted to hospital suffering from marasmus, enteritis, or broncho-pneumonia, and recuperate, and are given back to the parents almost normal children, only to return with a relapse in a matter of a month, or even less. This time recovery may also take place, but it is less likely, and should the child be dismissed well, it may even return a third time, when it will almost certainly die.

It must be admitted that ignorance on the part of the parents does play a certain part in the above events, and in the direction of educating the parents the infant welfare scheme and infant clinics may and ought to do some good.

One of the most striking features of the statistics regarding infantile mortality is the constancy of the deaths, which are ascribed to prematurity and congenital defects. In Glasgow these conditions are responsible for 30 per cent. of all the deaths under one year of age. This class, however, is the most unsatisfactory chapter in all infantile vital statistics. Undoubtedly all are not born into the world possessed of equal physical powers any more than of similar mental endowments, and many die as a result of some inherent weakness of constitution or error in their make up. Congenital heart disease and malformations of the gastro-intestinal tract may be cited as good examples.

Unfortunately, however, there are included in under this heading deaths from so-called marasmus and chronic gastro-intestinal catarrh. It is certainly true that some examples of marasmus or wasting are due to some inherent error of metabolism—assuredly a congenital defect of a kind—but it is equally true that many of the children

are the victims of some adverse circumstance—either culpable or accidental—of their environment. The first example that occurs to one's mind in this connection is the case of a child contracting tuberculosis from the ingestion of tuberculous milk. There is indeed much evidence that many cases of wasting or marasmus are not examples of immaturity, but are in reality due to tuberculosis, chronic pneumonia, and infection of the urinary tract.

One gets, I think, an erroneous impression of the frequency of death due to congenital defects from the ordinary death returns published by the Registrar-General. In the Royal Hospital for Sick Children, Glasgow, from 1903 till 1913 the deaths under one year from congenital affections varied from 7·5 per cent. to 16·0 per cent., very different from the 30 per cent. above quoted. When one recollects, too, that no infectious cases are admitted to such a hospital, the difference between these percentages and those of the Registrar-General becomes even greater.

Conclusions.

This short paper is more of the nature of a preliminary communication focussing attention on certain points of this difficult question.

Firstly, the apparent periodicity in the death-rates from the various zymotic diseases which seems to explain not only the variations in the death-rate from year to year, but in different parts of the country at the same time.

Secondly, the importance of environment (housing, &c.) as a factor in causing our high infantile mortality.

Thirdly, the necessity for a more thorough study of that class of case called "prematurity or congenital defect."

Finally, the need for a more scientific investigation of the results following schemes of infant welfare to determine their true effects.

By Dr. A. K. CHALMERS, Medical Officer of Health, Glasgow.

Mr. Chairman, we have had two opposing views presented to us this afternoon, and I think Captain Findlay has done excellent service in acting, as it were, the part of critic. But I want to make one or two things clear at the beginning. Professor Munro Kerr made an extremely important statement when he said that in all his experience during twenty years one patient only had died of convulsions. That was one thing. That was a contrast between the class of

patient who can afford a consultant of high skill and the generality of the public who cannot. And the next important thing he said was this, that 68 per cent., I think it was, of the causes of still-birth were avoidable; that is to say, 68 children out of every 100 born dead would be born alive if their mothers were attended to beforehand. Now, these are two important statements. Captain Findlay, on the other hand, has referred to the undoubted part which environment plays in child mortality, but the contrast raises this question, and I think it appeals to those of us who are engaged in administration in a very acute way—if housing is as bad as we know it to be—that is, if it is as unsuitable for the treatment of disease as we know it to be—then are our maternity hospitals ample enough to cope with all the work? With all the provision we have, and with all the excellency of our maternity hospitals, for we are not considering their method of work—we are simply asking the question, is there sufficient of them to do the work which we believe to be necessary? You tell us that by looking after the mother and taking care of her before and during confinement you can save the child's life. Can you do that in the homes which Captain Findlay has said are so prevalent? The same applies to the subject introduced by Mr. Aitken. With all the knowledge we have of the hospitals for sick children, it is something in the nature of adverse criticism that we should not until lately have had anything approaching to what might be called "the nursling bed." We have had nothing quite like that until a very recent period. It is when we consider the adequacy of the provision of institutional treatment for the public need that the excellence of Captain Findlay's criticism comes in quite appositely, I think. Captain Findlay may have appeared to criticise adversely—to wash out, in fact, all we had been spending the day considering. I know Captain Findlay's position, and I sympathise with it. But, remember, we are going through a phase of evolution in this matter. Go back ten years or fifteen years and ask what was then the view held of the causes of infantile mortality? Was it not then held that the whole difference between a living baby and a dead baby was the power of the mother to nurse it? It was said if you can nurse all your children you can save all your children. If you cannot nurse, then the best thing to do was to provide a colourable imitation of human milk. Modify cow's milk by adding cream, and sugar, too. Well, we have gone very far from that position now. But it was the medical theory of the moment that led to the establishment of milk depots here and in Liverpool and London and

other places. Another fallacy followed this one. It became fashionable to credit all infant mortality to environment. Captain Findlay has pointed out that in times of industrial depression you may get a very low infant death-rate, and in times of industrial prosperity a high one, which is contrary to the view that if a mother is well fed her child will be healthy. There is a certain amount of physiological reason for believing that if you do not feed the mother properly her children are not healthy. But the point, I think, of Captain Findlay's position is this, that as a people we have embarked on a new experiment. It is little more than a hundred years ago since we began to make ourselves city dwellers. The people are becoming urbanised, and the child mortality is one of the results. I do not say that in a condition of nature you would not have as high an infantile mortality as we have in cities, but I do say that after centuries of one kind of life man cannot adopt another without suffering from it, and without learning the way out. We are groping for it at the moment. We do know that infectious disease was at a minimum all through last year. We had very little measles in Glasgow, comparatively little diphtheria, and a falling amount of scarlet fever, and one of the results has been that we have had the lowest infant death-rate on record for us. It was only 109, while the lowest formerly was 121, or something like that. But if you come back, after all, to Captain Findlay's reason, it is this, neither a milk depot, nor a system of visiting, nor a crèche, nor a kindergarten, nor a patent method of feeding—none of these things individually is going to accomplish the work of child welfare. You want to alter the whole environment of the household, the whole setting of the family, and that in its last expression means drastic reform in housing and habits.

By JOHN C. M'VAIL, LL.D., M.D., Deputy Chairman, Scottish National Insurance Commission, Edinburgh.

Mr. Chairman, the papers to-day have been extraordinarily interesting, and I think it required Captain Findlay's contribution really to complete them and to show that it was possible to criticise many things that at bottom are excellent. I take it that we are tending to this opinion as regards institutions, that as long as housing conditions remain as at present or until they are radically improved, institutional treatment ought to be a supplement to dimiciliary treatment

and institutional conditions of life a supplement to domiciliary conditions of life. About ten years ago, investigating medical relief under the English poor law, I visited a number of maternity hospitals or wards in connection with poor law institutions. They seemed to me admirable compared with the conditions of the home life, and their excellence was being more and more appreciated by those who had right of entry to them, but their use was limited by the fact that they belonged to the poor law. The pauper in these localities where there was no general maternity hospital was much better off in respect of institutional treatment at childbirth than was a member of the working classes. But I found that some non-pauper families so much realised the benefits of these maternity hospitals or wards that they took pains to deceive the poor law authorities, and to make them believe that they were paupers in order to get the mother into the hospital to be treated in childbirth. The father, a working man, went away and took lodgings somewhere, and the wife presented herself as a deserted wife, with a claim on poor law relief, and went into the hospital, and when the case was over she came out again. So long as the houses are so defective, so long as the best cannot be done at home for the children of the nation—and, indeed, for the adults also—institutional treatment should be a supplement to domiciliary treatment, and its provision should be extended where necessary. The ideal would be to have the house and the nursery and so forth in such a satisfactory condition that no institution is required, but that ideal will take so long to achieve that if we can do anything to supplement domiciliary treatment in the meantime it ought to be done.

I take it that Captain Findlay was anxious in some of his remarks to warn the audience against the old fallacy of *post hoc propter hoc*. Some particular method of dieting, of dealing with the child, is adapted, and the death-rate diminishes immediately afterwards, and at once the conclusion is reached that the diminution is owing to that particular cause, until a year or two later, the same cause existing, the death-rate rises again. Well, it illustrates the third part of the old adage, "Art is long, life is short," and judgment difficult. There is no doubt that judgment is difficult, but while that is so we are on quite safe lines in many of the operations that have been undertaken for the welfare of children. The fact that an epidemic of measles or diarrhœa may chance to follow a year during which some step forward has been taken is no reason whatever for going

back on the step. Captain Findlay mentioned certain apparent anomalies about wages and the death-rate. He did not mention a remarkable fact in connection with the great cotton famine of the 'sixties. The Lancashire cotton districts were near starvation, and extraordinary hardships were suffered. Well, during that period the infant death-rate became lower in Lancashire than it had ever been before. Of course, that did not justify starvation, but on investigation it appeared that the mothers who habitually worked in the mills were during that period compelled to remain at home, because there were no mills to work in, and they were feeding their babies at the breast and attending to their households, and that accounted for the low death-rate. (Applause.)

One or two principles ought to be emphasised. I am very glad to see that, while various operations are being promoted for the welfare of infants, the teaching of parents is not being forgotten. It is always one of the dangers of action, which in the best sense is Socialistic, that it may diminish individual responsibility. Now, hand in hand with your efforts to improve the health of children there are efforts to teach the mothers. That completes the scheme. You are trying to teach the mothers to do their duty, and in that way you endeavour to maintain parental responsibility. At the same time that you teach them you are doing the best for the infants. Another point that interests me greatly is the development of medical inspection in this system of protection of children. You are not waiting until the child is ill before you deal with it. You are dealing with the child before it is ill. That, I think, is at the foundation of all good measures for improving the welfare of the nation, and it ought not to be confined to children—it ought to extend to the whole community. Ten years ago I suggested that on a voluntary basis the family doctor should once in a year or once in six months pay a visit to the family, and see all its members, even although none of them were ill. That now is being given effect to with regard to children. The children are being examined independently of existing illness, and I trust that by and by the whole community will come under some such degree of medical inspection.

The Chairman—I think we have got about to the end of our tether this afternoon. I would just like to add one word in relation to Captain Findlay's contribution to our symposium. I am always amused when I hear that side of the question put forward, and I am not made uncomfortable by it. Personally I am perfectly impervious to all doubts that can possibly be thrown upon the effective-

ness of work honestly tried for the welfare of motherhood and infancy. Nothing on earth will ever convince me as long as I live that my own efforts have been fruitless—that my own particular line of action has been without effect. I know it has been effective. I cannot explain it scientifically; only I can explain it as a matter of fact. If I find a mother I know needs help, I help her if I can, and if she has a good, nice, healthy baby, and brings it safely into the world, and rears it comfortably, that repays me for any effort I have made. But, mind you, of all things I do ask you to keep in mind this, do not wait for the Government, do not wait for your municipality, do not wait for anybody, but do one little, tiny, wee bit yourself. Don't you see the cumulative effect of a great many people doing just that? You will just sweep the Government and the whole country before you. Don't think I want to discourage efforts to tackle the Government, but this Conference could not tackle the Government—I am quite sure it could not—but if we were all to set to work in our respective localities we should create such an opinion that the Government would not need tackling; they would do it of their own accord. You must do it yourself, and then you will get the Government to do it. Don't wait for anything, but do it yourself. That is the thing I always try to impress upon myself. If you are miserable about things just hunt round and see if you can find some poor mother, some poor baby, that on your own initiative you can do some good to. (Applause.)

The Conference was then adjourned.

SECOND DAY.

At the opening of the second day's proceedings on Wednesday, 14th March, Dr. A. K. Chalmers, medical officer of health, Glasgow, occupied the chair.

The CHAIRMAN—Ladies and gentlemen, as you know, we are meeting this morning under the auspices of the Federation of Maternity and Infant Welfare Centres of Scotland. About a year ago it was thought wise that the activities of the separate organisations engaged in infant welfare work and in visiting should correlate themselves in the form of a Federation, and this, I think, is the first annual meeting of the Federation. If you will allow me, I will therefore follow the instruction of the president of the Federation and read you its first annual report—

"This Federation was formed at a meeting held in the City Chambers, Glasgow, on 10th May, 1916, at which the Lord Provost, Sir Thomas Dunlop, presided. After a full and free discussion it was considered that the Federation might link together different organisations working for the welfare of mothers and children. It was agreed to form an Executive Committee, consisting of president, vice-president, honorary treasurer, and secretary, and two delegates from each affiliated association. Mrs. Hannay, Glasgow, was appointed president; Mrs. Somerville, Edinburgh, vice-president; Mrs. Dickinson, Leith, honorary treasurer; and Miss Aikman, Glasgow, honorary secretary. The Executive Committee have met four times in Glasgow and Edinburgh. The constitution has been drawn up, and all preliminary arrangements made. After the Maternity and Child Welfare Conference, which is to be held in Glasgow in March, the executive hope to enter upon extended spheres of usefulness. Thirteen associations have already joined the Federation. The annual affiliation fee is 5s. Seventeen of the medical officers of health in Scotland have already agreed to become honorary members of the Federation." That forms the first report of the Federation, and, as you see, it is a report of work already accomplished in the way of organisation, and affords an indication that other work which will be executive work will follow.

Coming to the programme of the Conference, the subjects to be discussed at this sitting, viz., "Maternity and child welfare centres and their place as schools for mothers," may be regarded as the natural growth of what we discussed yesterday. Yesterday we considered the position of maternity hospitals and of sick children's hospitals in any scheme of maternity and child welfare, and to-day we begin by considering what relation maternity and child welfare centres have to such schemes, and their place as schools for mothers. The discussion will also include a maternity service under the Notification of Births (Extension) Act. The first speaker is Lady Susan Gilmour, C.M.B., Scotland, and I have pleasure in asking her to introduce the subject of the maternity centre and its relation to practising midwives.

2nd Day—Morning Sitting, 10 o'clock.

III.—MATERNITY AND CHILD WELFARE CENTRES AND THEIR PLACE AS SCHOOLS FOR MOTHERS. A MATERNITY SERVICE UNDER THE NOTIFICATION OF BIRTHS (EXTENSION) ACT.

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(1) THE MATERNITY CENTRE AND ITS RELATION TO PRACTISING MIDWIVES.

By Lady SUSAN GILMOUR, Member C.M.B., Scotland.

The subject which I have been asked to bring to your notice has sprung into prominence since the passing of the Midwives Act for Scotland, and the point which I wish to emphasise is the great importance of co-operation between midwives and maternity centres. In this question there is only one point of view—that of the mother and baby, and their welfare should be the only aim. Midwives are now an organised body of health workers under Act of Parliament, specially trained to recognise conditions which call for medical aid. They work under the strict rules of the Central Midwives' Board by which they are bound to keep their patients under supervision from the time of booking till ten days after confinement. The midwife possesses the confidence and is the chosen attendant of the mother, who naturally turns to her for advice, so that in her hands lie enormous powers which it should be possible, and which it is very desirable, to use in the right way.

The question by whom antenatal work is to be done is very important. If the patient has engaged a midwife, she is obviously the right person to do it. To suggest medical advice in the many antenatal conditions that may lead to miscarriage, stillbirth, and the birth of weakly or diseased infants is the aim and province of the midwife. Many of them now make a practice of visiting their patients at stated intervals during pregnancy, but no arrangements have been made generally by which midwives are paid for this increased but necessary work, and many may not be equal to it. The establishment of antenatal clinics is making provision for this need and at the same time providing valuable post-graduate experience to those midwives who avail themselves of this opportunity of taking their patients for consultations and being present at the medical examination.

Some practising midwives are keen, competent, and ready to take advantage of anything which is for the good of their patients, but very many are not. Even so, however, they should be brought into all schemes for their own guidance, instruction, and encouragement as well as for the good of their patients. Midwives claim the right to be responsible for their patients during normal pregnancy and for the detection of abnormal symptoms; but they welcome the help given by maternity centres to which their patients could be sent for adequate medical treatment, and they should endeavour to see that the treatment prescribed was carried out. If it can possibly be arranged, treatment for minor ailments, as well as advice, should be provided by the maternity centres, otherwise only one more step is interposed between the patient's trouble and its relief. All midwives urge upon their patients the necessity for early booking, as by placing themselves under skilled supervision in good time many abnormal conditions can be discovered which might be overlooked amid the general discomfort which too often characterises the last few weeks before the onset of labour. When once the midwife has succeeded in convincing her patient that the condition calls for treatment, there can be no object in sending her for this to an antenatal clinic if she is only to be sent on to a doctor or hospital. The better the midwife the more ready she is to embrace every opportunity of learning and of improving the condition of her patient, and great care should be exercised to encourage the well-qualified, better-class woman, as the profession is one for which the greatest skill and highest integrity are essential factors. Therefore since the midwife is specially trained for attending the mother

professionally, she should be recognised as her own health visitor from the time of booking until she hands mother and baby over to the health visitor at the end of ten days.

I hope I have made it clear how very desirable it is to recognise the work of the midwife and to make use of her in any scheme, and in fact maternity centres *must* have her help if they are to succeed.

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(2) MATERNITY AND CHILD WELFARE SCHEME FOR AN INDUSTRIAL COMMUNITY.

By JOHN A. LINDSAY, Convener of Public Health Committee of the Burgh of Leith.

In these notes I do not intend to make an appeal in any detail as to the necessity for the provision of free medical advice and supervision for expectant mothers and their infant children in an industrial community.

I take it for granted that those who have given any consideration whatever to the matter will agree with me that some such provision is eminently desirable, nay, even is absolutely necessary if the—at present—high infantile death-rate is to be materially reduced.

For my own part I consider that in national life, in municipal life, and in the still narrower sphere of Church life, too much consideration has in the past been given to the reformation of the adult and too little to the preservation of the child.

Times, however, change, and in the minds of men and women new thoughts arise and fresh ideas formulate. The time of peace has gone, and a time of war—unsurpassed in magnitude—has arrived, and the mind of mankind is exercised, as never before, for the safety, nay, even for the very existence, of our nation.

We have lived to see the flower of our youth, the best of our manhood, daily drafted away to the battle line, and the thought is borne in on our minds that if our nation is to be preserved from decay infant life must be preserved to the fullest possible extent.

I venture to think that no social movement in these days is fraught with greater possibilities and with greater beneficent results to our race than is this movement in favour of a deeper interest in child welfare.

It is an old saying, but bears repetition, "Prevention is better than cure." We make notification of infectious disease compulsory in order that we may prevent its spread. The fact that we are now

comparatively free from such diseases as typhoid fever, typhus fever, smallpox, &c., is sure proof that we are on absolutely right lines.

Our local authority has for a number of years given increasing attention to the care of infant life.

I well remember when I entered the Council fully twelve years ago that we required to get the special permission of the Scottish Office to pass a small sum incurred in running a milk depot. This milk depot, after a short and not altogether satisfactory run, was closed. Then came the appointment of whole-time lady health inspectors for the fuller oversight and care of infant life.

In the course of their visits these lady inspectors came across many mothers and infants requiring medical advice. These mothers were encouraged to call at the Health Office to have their infants regularly weighed, examined, and treated.

This free medical advice to the necessitous was much taken advantage of, and the need for it was so apparent that our local authority decided to secure the part-time services of a fully qualified lady doctor. Her salary was paid from the "Common Good."

This lady doctor started her work in March, 1915, and continued it till the end of July. During this period she held a weekly clinic at which the average attendance was 25, and in addition she paid upwards of 300 outside visits to necessitous cases.

After she left the work was carried on by our medical officer of health, as far as his time would permit, till the local authority secured the part-time services of another fully qualified lady doctor.

She started her work in January, 1916, and at first held weekly clinics. The attendance at these increased so rapidly, however, that two clinics weekly became necessary. The average attendance at these clinics was 42. This lady also paid outside visits to necessitous cases.

Unfortunately, this lady doctor was called to a more prominent appointment, and the work again devolved on our medical officer of health.

The local authority, however, fully recognising the importance of the work done by these ladies and the necessity for its continuance, decided to formulate a maternity and child welfare scheme, under the powers conferred by the Notification of Births (Extension) Act, 1915.

This scheme has been prepared on lines to take the fullest advantage of existing available institutions, but leaves room for further development. The scheme is in reality a fuller expansion

of the work which has been carried on for some years past, and it has been sanctioned by the Local Government Board.

Our local authority now has this scheme in operation. It is, I readily admit, not so complete or as perfect as it might be.

A house, for instance, where a weak infant or a convalescent child, or even a delicate mother could be nursed and restored to good health would form a most valuable addition to a child welfare scheme.

I have little doubt but that in the near future such a "house" or "home" will become a feature of our scheme.

In view of the heavy toll exacted by measles and whooping-cough on infant life—as shown by attached Table B—our Public Health Committee at a recent meeting resolved to recommend our Town Council to make these two diseases compulsorily notifiable.

Notification of these diseases may save many a child from contracting inflammation of the lungs or bronchitis.

I am strongly of opinion that the medical supervision of school children should also be under the direct control of the medical officer of health, and not, as at present, controlled by the School Board.

Further, in the carrying on of child welfare work great care should be taken to see that parents are not, without grave cause, relieved of their responsibility for the proper feeding and clothing of their children.

Parents who can but who do not provide for their children should be suitably dealt with.

Extract from "Notes on the Sanatorium Treatment of Industrial Patients," by Ian Struthers Stewart, M.D., Medical Superintendent, Ochil Hills Sanatorium.

STATEMENT A.

Showing the Effect of the Extent of the Pulmonary Lesion.

Percentage Result.

	Number of Cases.	Improved.	Decidedly Improved.	Arrest.	No Change.	Worse.	Dead.
1 Lobe, - -	77	6·49	20·78	55·84	14·28	1·30	1·30
2 Lobes, - -	178	20·78	25·84	13·48	29·77	7·86	2·24
3 ,, - -	69	20·29	32·00	5·80	21·73	17·39	2·89
4 ,, - -	67	16·41	10·44	0·00	29·85	28·35	14·92

This table of Dr. Stewart's demonstrates in a most striking manner that if Phthisis is to be attacked successfully, it should be attended to in its earliest stages, and as with Phthisis so with many of the troubles which afflict children.

STATEMENT B.

RATE OF INFANTILE MORTALITY FROM ALL CAUSES.

BURGH OF LEITH, 1901-1916.

		Rate per 1000 Births.	
Epidemic of Measles and Whooping-cough,	1901,	142	
	1902,	117	
Whooping-cough,	1903,	140	Mean—124
	1904,	122	
	1905,	102	
	1906,	121	
Cerebro-Spinal Meningitis,	1907,	131	Mean—123. Notification
Whooping-cough,	1908,	136	of Births Act adopted.
	1909,	111	
	1910,	118	
Whooping-cough,	1911,	134	
	1912,	109	
Whooping-cough,	1913,	120	Mean—116
	1914,	99	
Hæmorrhagic Measles,	1915,	127	
	1916,	83	

STATEMENT C.

INFANTILE MORTALITY IN

	London.	Sheffield.	Edinburgh.	Glasgow.	Leith.
1901,	160	200	152	153	142
1902,	149	202	143	149	117
1903,	141	150	119	128	140
1904,	131	182	117	142	122
1905,	146	134	125	145	102
1906,	131	167	124	131	121
1907,	131	158	112	131	131
1908,	116	145	121	130	136
1909,	113	118	114	136	111
1910,	108	127	113	121	118
1911,	103	141	111	136	134
1912,	129	107	115	122	109
1913,	91	128	110	120	120
1914,	—	132	128	129	99
1915,	—	133	132	143	127
1916,	—	111	100	109	83

From the foregoing figures it will be noticed that the infant mortality in Leith compares favourably with that in other large towns in Scotland—

	Dundee.	Aberdeen.	Perth.	Greenock.	Glasgow.	Edinburgh.	Leith.
1915,	210	173	154	145	143	132	127
1916,	126	112	74	110	109	100	83

By LEONARD FINDLAY, M.D., D.Sc., Physician, Royal Hospital for Sick Children, Glasgow.

Mr. Chairman, I am sorry I was not here in time to hear the earlier speakers on this question of "The Infant Welfare Centre in Industrial Communities and the Milk Supply," but I would like to put forward my own views on the subject. In the light of present knowledge and research one can divide infantile mortality, or the causes of infantile mortality, into avoidable and unavoidable. As everybody knows, all children are not born into the world endowed any more with equal physical powers than with equal mental attainments, and certainly a great many are born into the world unfit to live. There are some congenital defects that are incompatible with life. The two best examples one might mention are, say, severe congenital heart disease, and also some serious malformation of the gastro-intestinal tract, and nothing we can do has any power over these conditions. But there are a great many avoidable causes, some culpable and some accidental. I do not think one can look at it in any other way than as of the nature of an accident that a child contracts measles or whooping-cough, and dies from one of its complications. Certainly it is not culpable. It may have contracted measles unknown to either the authorities or its parents. But how otherwise than as culpable can we look on the death of a child from bovine tuberculosis? It has been shown pretty conclusively by the British Royal Commission on Tuberculosis, and more especially by the workers in Edinburgh, that a great many deaths of infants and young children are due to bovine tuberculosis. There are two kinds of tuberculosis—that caused by the human tubercle bacillus, and that caused by the bovine bacillus. Professor Munro Kerr said that he hoped the time would come when tuberculosis would disappear, but I do not think anything but another Flood will get rid of human tuberculosis. With bovine tuberculosis, however, the matter is quite different. It would seem that in practically every instance—not in every instance, one must admit, but in the vast majority of instances—the child contracts bovine tuberculosis by drinking infected milk. Now, yesterday, while speaking of research, I said that legislation should come in the rear of research, but this is one line in which research is far ahead of legislation. (Hear, hear.) It has been shown conclusively that not only do we lose a great many children under one year of age from bovine tuberculosis, but a great many are maimed for the rest of their lives. The mortality does not represent one tithe of the damage that is done by this infection.

Now, children contract bovine tuberculosis from milk of tuberculous cows, and that is one thing that can be rectified. It is certainly avoidable. It simply means the expenditure of so many million pounds—probably not any more than you are spending in two days in this present war. With that you could get rid of all tuberculous cows, compensate the farmer for the loss of them, and then start off with a fresh stock. That is urgently required.

Regarding the question of the infant clinic, I think we must bear in mind that the infant clinic as run by the Infant Welfare Society must be kept entirely apart from, say, a children's hospital. The Public Health Department and the Infant Welfare Association and infant clinics have, to my mind, their prototype in the Chinese physician who is paid so much to keep his clients healthy. Our children's hospitals are like ourselves. We (*i.e.*, physicians) are only called in when the patient is ill and have to cure him, and I think that will still have to go on. It is only meet and proper, however, that the health authorities should look after the conditions of our town, the conditions of our homes, in order to keep the population as healthy as possible. I would like permission to qualify to a certain extent what I said yesterday—at least what Dr. M'Vail, I think, did me the injustice of purporting to say. I did not mean to say, and I do not say, that the infant welfare movement is useless—that it is no good at all. What I do say is that it is not going to tackle the real problem. As some of our friends yesterday remarked, it is a question of housing. But the Infant Welfare Association, I think, certainly will do good, in so far as it will educate the mothers in the feeding, the clothing, and the rearing of normal children. We cannot expect to have a sufficiency of qualified physicians, or people qualified in the diseases of infancy, to staff all the infant clinics that you wish to inaugurate, but there is quite a sufficiency of nurses and of voluntary workers who are quite able to show the mothers what is the proper way to clothe a child, how to bath it and keep it clean, how it should be taken out, and such like, and how to make the best of the housing conditions they have got. We must remember that these two things must be kept quite separate, the Infant Health Association and the children's hospital. The children's hospital will look after the children that are sick, and there, as Mr. Barclay said yesterday, research in connection with the diseases we are ignorant of will be carried on, so that we may be able to learn something, and legislation on the proper lines will follow later. (Applause.)

(3) THE INFANT AND CHILD CLINIC: THE VARIED REQUIREMENTS OF SMALL AND LARGE TOWNS.

By HAROLD KERR, M.D., D.P.H., Medical Officer of Health, Newcastle.

Mr. Chairman, I have very little to say on this subject. I did not expect to be called upon so early. With regard to the infant and child clinic, which I see I am down to speak on, in Newcastle we have had seven welfare centres for a number of years past, and we started as early as 1906 or 1907, first with one centre during a great strike. Many of the mothers were not getting the nourishment they should have had, and an organisation of very patriotically minded ladies decided to start an arrangement by which mothers could receive good nourishing meals at mid-day. They had to bring their babies with them. The babies were brought with them, and were deposited upstairs in banana crate cots provided for the purpose, and the mothers had to consume their meals in the building without taking them home, because we know that the average mother who could take food home would do so for the others. They were provided with a good meal, and how the ladies did it I do not know. The ladies are wonderful people. They contrive all sorts of things that the mere man is almost unable to conceive of, and for a penny these women were given a most excellent meal—good vegetable broth made with vegetables and meat stock, and meat or fish of some sort, and sometimes pudding. The penny did not pay for the whole meal, but it paid two-thirds of the cost of it. The food actually cost only about 1½d. The opportunity was taken to give the mothers who attended instructions in home hygiene, the care of children, cookery, and all the domestic arts suitable to the artisan house, and they were taught sewing and knitting, and encouraged to cut out and make their own clothes and clothes for the children. They also prepared the midwifery sets they required for their own confinements. This movement grew and other centres were established, but as the necessity for feeding diminished the dinners were stopped, and now we do not supply meals at all. Naturally, of course, there was a falling off in the attendance, because one of the rather discouraging features of infant welfare work in centres of this sort is the fact that there has to be some material advantage to the mothers after going there—something they can appreciate themselves; and we find, particularly now, that although the women will come, and the cup that cheers is a great inducement to them also, even that

is counteracted very readily by any such really exciting amusement and pleasure as a funeral in the next street. That will draw the women away from any welfare centre. If there is no doctor at the clinic the mothers are not nearly so anxious to come in the afternoons, and be they superintendent of midwives or chief health visitor, or whoever it is that is conducting the weighing seance, unless there is a doctor there the women are not nearly so keen in coming. Still another difficulty is this. We have all got our pride, of course, and none more than the people of the submerged tenth. The poor folk coming who have not got a decent bonnet and clothes are very sensitive indeed about coming amongst their better-dressed neighbours. Women of the artisan class, the better-paid workers, will come fairly readily, but the very poorest folk are the ones we have great difficulty in getting at, and I am afraid you must rely almost entirely upon the work of the health visitors in the home for getting near to these. I should not have said "clinics." We have no clinics. All we have is weighing and advice, preventive rather than curative, but we intend to extend considerably later on. At the present time, subscriptions having fallen off very much, the Corporation has subsidised the voluntary society so as to bring their income up to their expenditure. The welcomes are run at an extraordinarily cheap rate, the whole seven, and two of them are big centres, open every day, and occupying an entire house—I mean an entire building of seven or eight rooms. These are open every day, and the other five vary from three times a week to once a week each, and the whole lot only cost something about £630 per year, which is remarkably low. They do a tremendous amount of good, but at present we are very badly handicapped by lack of doctors. We have one lady doctor who visits each centre once a fortnight, but that is not enough, and the numbers attending are not what they should be, although they are not bad. There must be very close co-operation between such centres and the Health Department. There are some towns I know of in England that I have been in where the child welfare centres are quite a separate organisation from the Health Department. There is a certain amount of co-ordination by means of interchange of cards between the health visitors' section of the Health Department and the clinics, but that, to my mind, is not sufficient. The health visitors must take an active part in the centres. It is they who must canvass for the centres, get the mothers up there, and be there when the mothers

come, so that the mothers do not come and find themselves amongst total strangers. They must be there to welcome and give them a word of advice or commendation when the children come, and show that they are following them up and taking an interest in them. There is just one other word I wish to say, and that is on the question of health visitors. With regard to the health visitors, the voluntary and the professional, frankly speaking, I am afraid I cannot say that the voluntary worker comes up to the professional worker at all. That is as a general rule. There are, however, striking exceptions. We have got some exceptionally good voluntary workers who have stuck to their work, and followed it up from the very beginning almost of the child welfare movement, but these are the exception. The voluntary worker, as a general rule, tends to be somewhat unreliable. She is a burning enthusiast for a few weeks, or possibly months, and then her keenness cools off, and you cannot be quite sure of her after that. Or else she may start off during her keen period with strong preconceived ideas which are not always in accordance with the experience of those who have devoted some special attention to the subject, and they are apt to clash with the efforts of the Health Department. For that reason I personally prefer the whole-time health visitor. Then as to the health visitor's qualifications, I do not care what qualifications she has. She may have half a dozen gold medals to string round her neck if she likes, but that does not make her a health visitor. She has got to be a tactful, sensible woman first and foremost, and kindly and sympathetic to people, and the very last thing she must be is an inspector—a lady inspector. There is a double offence in that title "lady inspector." "Lady" puts her on a platform high above the people she is working amongst, and "inspector" savours rather too much of "nosey Parkers," and you don't want "nosey Parkers" for maternity and child welfare work. When we are advertising for health visitors we try to get the very best qualified, and the *sine qua non* is the certificate of the Central Midwives' Board. We require that they all have that before we appoint them, because that is a qualification they cannot very well take after they have started on the duties of their post, whereas if they have not got their health visitors' ticket they can pass that after they come to us, but, as a matter of fact, it is very exceptional that we do not get them with the double qualification, and most of ours are trained in general nursing, fever nursing, or children nursing as well. I think there is a tremendous future for health

visitors' work, and in England we are extending in all directions. Every Health Department is increasing its staff enormously, and we try to have the child welfare centres co-ordinated with the Health Department.

The CHAIRMAN—Dr. Kerr has dropped a bombshell amongst us this morning. He has challenged the voluntary worker. If our organisation here owes anything to anybody it is to the voluntary worker. That is all I want to say at the moment, but I am quite glad to have the point of view presented.

The CHAIRMAN—Now, I have pleasure in introducing to you Miss Halford, secretary of the National Association, who will say a few words in place of Dr. Hope, Liverpool.

By Miss HALFORD, Secretary of the National Association for the Prevention of Infant Mortality and of the Association of Infant Welfare and Maternity Centres.

MR. CHAIRMAN, ladies and gentlemen, before speaking on the subject of clinics I should like to point out that in England, at any rate, we differentiate considerably between clinics and infant consultations. A clinic to our mind is a place where a child can come for medical *treatment*, and not only medical *advice*, but a great part of our work in England and Wales has consisted of the provision of medical advice only, and no treatment has been given at all. One of the disadvantages of connecting infant clinic work with infant consultation work is this. Two or three of these centres have been started and continued for some time in connection with dispensaries to which sick children are brought. We find that the consequence of this is that the mothers wait till the child is ill before they bring the child to the centre. Now, the main object of this work is prevention, and not cure. We are out to catch those babies while well and to keep them well, and for that reason I would say that infant clinics are not for our purpose as useful as infant consultations. In the same way mention has been made of work of this kind in connection with hospitals. In London within the last year practically every large hospital that has a department for women and children has also recently started an infant clinic. There, again, that is mainly as a sort of addition to the out-patients' department. But the great

difficulty with these hospital clinics or consultation centres is that none of the educational and social work on which we in England lay so much stress is at present undertaken. Only to a small extent is there visiting in the homes, which we think so important and valuable in following up the work done at the centres. Therefore I think that in regard to any extension of this work contemplated in Scotland you should think very seriously before you tackle that question of the cure of disease, which is already provided for by the hospitals, and instead of that you should limit yourselves to the prevention of disease, giving advice to mothers and giving attention to the educational aspect of the work, which seems to me to be a good deal more important. As far as I have gathered from the discussions yesterday and to-day, all those who have spoken about this work have dealt with it in connection with large towns. We know that in rural areas the death-rate is practically never as high as it is in urban areas, and for myself I shall not feel satisfied until we have covered every town with a network of these centres as one of the means—not the only one, by any means—but as one of the means by which this high infantile mortality can be combated. In London our aim is to get one of these centres within half a mile of every mother needing them. We know that no mother with a baby can carry her child a great distance without doing harm to herself probably, and to the child, too. We want these centres, ladies and gentlemen, at almost every street corner. We heard yesterday, when the question of total prohibition was under consideration, of the very large number of public-houses that exist. Now, if we shut up some of these public-houses may we not turn some of them into infant welfare centres? That has been done already in at least half a dozen towns I could mention. In one case a public-house, called "The Bricklayers' Arms," very soon became "The Mothers' Arms," and I think that that is a very much better use for it to be put to. (Applause.) In all our large centres of population we have our schools, and every one of these schools has that excellent system of medical inspection. Is it too much to ask that we should have schools for mothers and children under school age in order to prevent the latter going to school with the lamentable defects which we know many of them have? I am very glad to find that the voluntary agencies are at last being adequately supported in a large number of cases, both through the Treasury grants and by the local authorities. Dr. Kerr, of Newcastle, was too modest to tell you that the Corporation of that town have given

£250 a year to the Voluntary Society for keeping on that work. Similar grants are being made in Gloucester, York, and other large towns, where £100-£200 per year is being handed over to the voluntary societies for the prosecution of that work. At the same time many of the local authorities are taking over the voluntary societies entirely. As far as the national work is concerned, they have recognised the value of the voluntary efforts, and they mean to keep up these voluntary efforts, and I hope that in the near future practically every urban and rural Council will see its way to take over the expenses of the work, but to leave to the volunteers that educational and social side which they have so well carried out before. (Applause.) As regards the rural areas, I am surprised that they have not been mentioned here more than they have been, because in Scotland you have many sparsely populated areas which are difficult to reach. We in England have been tackling this problem during the past few years just as much in the rural areas as in the urban areas. That can be done by taking several villages or small towns, and combining them into a district. For instance, in the district of Chertsey, which combines some ten or twenty small villages, ten of those villages have been united under one medical officer for infant welfare work, the medical officer for the district being at the head of it all. In every one of those ten villages a committee of local volunteers has been formed, but they are supplemented by the health visitors of the area and by the specially appointed woman doctor, who is adequately paid for her work, and who is responsible for the medical work at each of these centres. She gets £200 a year for that work, which occupies half her time, and she goes to these centres regularly, so that none of the village centres shall be without a doctor less than once a fortnight. As we have already heard, it is for the medical advice that the mothers come to these centres. That is what they want free of charge, because they cannot afford it for themselves. Therefore I urge that all this work should be on a sound medical basis before all. I know of several cases where the lady of the village places one of the rooms in her house at the disposal of all the other mothers in the village, and there they come once a week or once a fortnight and talk over what is wrong with the babies, so that if it can be done in a dining-room or a drawing-room in a private lady's house do not be discouraged from doing it in as simple a way as you like. We want to rouse the people to the importance of this work. We want to bring it home to every man and woman in the United Kingdom,

that whereas in 1915 we were losing nine men on the battlefield every hour, during that same period we were losing twelve babies. Until we make every man and woman in the United Kingdom realise that they all can do a little bit towards helping in this work we shall not do our duty as a nation. To that end we are organising a national campaign—a national baby week—to be held from the 1st to the 7th of July, in which every effort will be made to stir up the people generally to realise their duty in this matter. We are roping in the clergy of all denominations, and the schoolmasters and schoolmistresses, and we must get at every Town Council to see that they do their duty. All this work, I think, will lead to a still further reduction in the mortality rate of the kingdom. Finally, I should like to add that the Association of Infant Welfare and Maternity Centres has prepared a large amount of literature on the subject. We have drawn up case papers, weight cards, and so on, specimens of which will gladly be sent to any one applying to me for them at 4 Tavistock Square.

By Dr. ISABEL THOMSON, Public Health Department, Glasgow.

Before beginning my remarks I wish to thank the Conference for giving me the opportunity of speaking on the subject of infant consultations as they are conducted in Glasgow.

We have fourteen consultations per week in different districts of the city. These are intended primarily for healthy children, our aim being to prevent ill-health rather than to treat it. I find it necessary to impress upon the mothers that I wish to see their babies regularly, not only when they are ill, but when they are well. We have a few simple medicines, such as cod liver oil emulsion, cough mixture, bismuth powders, grey powders, and ointments. These are given to the very poor who have no private doctor in attendance.

The mothers who attend the consultations are almost entirely from one-apartment or two-apartment houses.

On the first attendance I examine each infant thoroughly, noting any defects. I ask the mother about feeding, condition of the bowels, &c. I also inquire about the health of the father, of the mother herself, and of the other children if there are any, after which the infant is weighed. I then give any advice as to general hygiene and feeding that I think may be necessary. Occasionally

the mothers raise objections to the children being undressed and weighed, but when they find that all the other children are being undressed and weighed, and that every care is taken to prevent exposure, they almost invariably fall into line.

I find that they are grateful for advice, and try to follow it. They seem to appreciate the consultations, and a friendly rivalry exists among them as to whose baby is making most progress, as exhibited by the increase in weight and general improvement.

We are now making an effort to induce mothers to bring their children after the age of one year and under school age.

During the fortnight ending 8th March, 1917, 600 children attended the consultations. Of these 491 were under one year and 109 over one year.

Personally I hold 10 consultations per week. During the first week of the fortnight named I saw 202 children, and of that number 168 were old cases and 34 were new cases.

Of the old cases 114 were in a satisfactory condition and increasing in weight. They were fed as follows:—

Breast fed,	57
Breast fed + Cows' Milk,	9
Breast fed + Sister Laura's Food,	2
Undiluted Cows' Milk boiled,	40
Patent Foods—	
Sister Laura's, Nestles', Allenbury's Cow & Gate's	6

My experience is that cows' milk, undiluted and boiled, gives most excellent results, the quantities being calculated according to the child's weight, as advocated by Dr. Leonard Findlay, Royal Hospital for Sick Children. Thus a child weighing—

1st month—3000 grams. requires 300 calories per day. Represented as nearly as possible by 6 feeds of W.M., ʒiiß and ʒß of sugar, which gives 288 calories per day.

All the other months I have calculated on the same principle. Thus at 9 months, weight 7500 grs. energy required 600 calories. Represented by 5 feeds of W.M., ʒvii + ʒi of sugar, which gives 655 calories per day.

The mothers are instructed to feed the children four-hourly, and, so far, I have not adopted citration of the milk.

Fifty-four of the old cases were unsatisfactory; 6 of these were simply not increasing in weight or had lost weight without any apparent cause, and in these I supplemented the breast feeding by two W.M. feeds if the children were breast fed, or if artificially fed, changed the feeding to another artificial food. The remainder of these 54 cases suffered as follows:—

Bronchitis,	8
Rickets (all these cases of rickets were over one year, with the exception of one child),	8
Congenital Syphilis (4 of these cases were improving under mercurial treatment and 1 from Salvarsan administered at the R.H.S.C.),	5
Ophthalmia Neonatorum,	4
Tetany (2 cases over one year),	3
Whooping-Cough,	3
Scabies,	3
Discharging Ears,	2
Acute Mastitis,	1
Measles,	1
Convulsions,	1
Enteritis (died),	1
Pyelo-Nephritis (well),	1
Anæmia,	1
Broncho-Pneumonia,	1
Chronic Broncho-Pneumonia (1 over one year discharged improved from R.H.S.C.),	1
Lupus,	1

When in any doubt as to whether instructions are being carried out, I bring such cases under the special notice of the health visitor.

Acute cases are referred to the Royal Hospital for Sick Children, or where there is a private doctor, to him.

I am aware that one must not regard one type of artificial feeding as the panacea of all digestive ailments of children, but I have adopted the whole milk type of artificial feeding in the clinics as being the simplest to carry out by mothers who have little idea of regularity, exactitude, and methodicity not only in the feeding, but in the general education of their infants.

I append the written directions I give to the mothers and a table I have drawn up for the amounts of milk—

TABLE FOR AMOUNTS OF MILK.

Months.	Weight: Grammes.	Energy required Calories.	Food: Ounces.	Energy given Calories.
			W.M. = Whole Milk.	
1	3000	1000 grammes requires 100 C. = 300	W.M., ℥iiδ + Sugar, ℥δ × 6	288
2	4200	1000 grammes requires 100 C. = 420	W.M., ℥iiiδ + Sugar, ℥δ × 6	390
3	4800	1000 grammes requires 100 C. = 480	W.M., ℥iv + Sugar, ℥δ × 6	480
4	5300	1000 grammes requires 90 C. = 477	W.M., ℥v + Sugar, ℥i × 5	485
5	5800	1000 grammes requires 90 C. = 522	W.M., ℥vi + Sugar, ℥i × 5	570
6	6300	1000 grammes requires 90 C. = 569	W.M., ℥vi + Sugar, ℥i × 5	570
7	6700	1000 grammes requires 80 C. = 536	W.M., ℥vi + Sugar, ℥i × 5	570
8	7100	1000 grammes requires 80 C. = 568	W.M., ℥viδ + Sugar, ℥i × 5	610
9	7500	1000 grammes requires 80 C. = 600	W.M., ℥vii + Sugar, ℥i × 5	655

DIRECTIONS FOR FEEDING GIVEN TO MOTHERS.

..... Tablespoonfuls of *boiled* milk
and
..... Teaspoonfuls of sugar
at
6 o'clock
10 ,,
2 ,,
6 ,,
10 ,,
Between feeds—water.
Once a week half a Teaspoonful
orange or lemon juice.

By WILLIAM ANGUS, M.D., D.P.H.(Camb.), Medical Officer of Health, Leeds.

In discussing maternity and child welfare centres from every aspect, as is the purpose of this meeting, it is inevitable that comparisons should arise as to the value of such centres when conducted as schools for mothers, with infant consultations, with their value when run as infant clinics, the difference between the two being that in the former instruction and advice only is given whilst in the latter it is accompanied by medicinal treatment if called for.

Experience in working at infant welfare centres shows, I think, that from the point of view of the medical officer, to work at a consultation without being able to give any treatment is for him or her to be severely handicapped, and to limit greatly the usefulness of the consultation. It is true that much may be done by altering the diet or habits of life, but there are many cases in which the use of simple drugs is a necessary aid. To recommend the mother on that account to take her child to her doctor or to some large medical institution does not meet the case, because in many instances such advice will not be taken until the child becomes seriously ill, and an opportunity of preventing prolonged ill-health has therefore been lost. Further, there is some probability that the mother may never return to the infant welfare centre because she considers it an institution with too great limitations.

In reply to those who say that the giving of medicines lessens the attention given to prevention and to improving the dietary, hygienic conditions, or the habits of the infant, I would say that this is by no means the case if the work be in the hands of medical officers who understand the real objects of infant welfare work, and all centres ought to be staffed by medical men or women who do so. In my judgment the question of medical staff is one of the most real difficulties we have to contend with at the present moment, because a centre is no use without the right kind of doctor, and the only right kind of doctor is one who is heart and soul in this work—who is thoroughly imbued with the preventive side of infant therapeutics, and looks upon every child lost as a possible failure in some part of the scheme or its workers. Such doctors are scarce, and few will be trained until there is an alteration in the medical curriculum.

Coming back to the point on which I started, I can say that in Leeds, having had experience of infant welfare centres established

as schools for mothers, with consultations, and subsequently transformed into clinics at which treatment is given, it is felt by all who are associated with the work that the change has widened immensely their sphere of usefulness. It has not reduced the number of healthy babies brought to the centres. It involves no encroaching on the province of the general practitioner; on the one hand doctors send cases to us for dieting and to be weighed, and we, on the other hand, send to the doctors cases of acute illness earlier than they would otherwise get them. *The* practice that the infants' clinic does supplant is that of the over-ready-with-advice neighbour, whose sole qualification is that she has "buried seven," and the proprietors of teething powders, soothing syrups, and gripe waters, which is as it should be.

In organising an infant welfare scheme in order to do really preventive work, I think it is necessary to have a centre within easy reach, say, a half to three-quarters of a mile, of the homes of all who are likely to benefit. I think a central clinic, although it has many attractions and advantages in the way of simplicity of administration and economy of the time of staff, is not likely to be so beneficial on the preventive side, because it means a long journey on the part of many mothers, which they are not likely to undertake unless the child is seriously ill. We want to see the babies when they are well, so that they may be kept well. We must have our centres as easily accessible as the before-mentioned neighbours and the vendors of quack medicines if we are to combat them. In selecting a site for a clinic it is important to think not only of tram routes for accessibility, but also of pram routes.

In Leeds we have eight clinics forming a chain round the city midway between its centre and its circumference, like a circle of forts in the defence of the health of the children, and only two or three weeks ago we opened a ninth centre to serve the special needs of Jewish mothers and babies. Five of the centres are open twice a week for babies, and four once a week; and at each there is an antenatal clinic once a week. The health visitors, on their visit to the home after the birth of a child, advise the mother where and when to attend, and, if the mother comes, then the same health visitor is there to welcome her and to weigh her baby. We have had meetings of the midwives and explained the system to them, and each midwife has a card giving the address of the centres and the times of meetings for expectant mothers and for children.

As to the system adopted in conducting a centre, there is in charge of each a clinic nurse, and on the clinic days she is assisted by the health visitors from the district served by the clinic. All the children are weighed by the health visitor, and she sends in to see the doctor (we have two full-time infant welfare doctors) first, every new case; secondly, every child under treatment; thirdly, every child who has not done well since last visit. Babies who are doing well are seen by the doctor about once a month.

At the first visit the mother has a little lesson all to herself on hygiene and infant feeding applied particularly to her own baby. I have found that collective teaching of mothers, whilst no doubt useful in such inanimate subjects as clothing and cooking, is of very little use as soon as you deal with matters relating to the child as a separate living being listening to a formal lecture, the mother accepts the dicta of a lecturer on, say, quantities or times of feeding, or open-air exercise, if they happen not to be according to her own practice, with the mental reservation that the principles laid down may be all very well for the average infant, but that they are not applicable to her baby because of its idiosyncrasies. One has to deal with each mother separately, and meet her arguments with the appropriate lesson in physiology or pathology as the case may be. This is what the doctor does, and therefore the work is slow and takes time, but I am convinced it is the only method that is of use. It is the same with leaflets. I do not think they are of much value by themselves unless thoroughly explained beforehand to the mother. They are then useful to reinforce what has been said if the mother will read them at leisure after she gets home. For the feeding of infants we use no leaflet but a blank card on which the proportions for feeding the child are written down in each case.

The clinic nurse is in attendance on the doctor, and hears the instructions given, and on her subsequent home visits sees that the mother has grasped the instruction given and is following it intelligently. Besides the big meetings once or twice a week, the centres are also open every morning, when the clinic nurse alone is in attendance. At these times children who require treatment, such as syringing of nose or ears and treatment of eyes, which there is no time to give at the meetings, are brought up to be done. Also if special feeding, such as peptonised milk or whey, is ordered, the mother brings the milk she has bought, and the

nurse peptonises or makes the whey for her for one or two mornings till the mother can do it herself at home. I think this is decidedly more useful and educative than the plan of providing daily at a milk depot ready prepared feeds in sets of bottles, because under the latter system, if the mother should move to a district where there is no milk depot, she has not learned enough to know how to manage for herself.

As to the type of case whose treatment is undertaken, no serious, acute ailments requiring frequent medical visits are accepted. Such are referred to their own doctors or to larger medical institutions in the centre of the city. We have a sort of tacit and informal arrangement with these institutions that they refer to our local clinic cases which are in need of hygienic and dietetic treatment, whilst we in turn refer to them all acute cases, cases of a surgical nature and of very special clinical interest. Where there is a good school clinic, I think it is very desirable that the local infant welfare centres should be closely co-ordinated with it, so that children with enlarged tonsils and adenoids, defective eyesight, ringworm, &c., could be referred there for treatment although still under school age. It is merely anticipating the work which the education authority will probably be called upon to do after the child has gone to school, and it will greatly benefit the child to have the treatment carried out earlier.

There is still another class of case for which hitherto practically nothing has been done. I refer to those infants who seem to go steadily downhill in spite of the best efforts of the mother and the health visitor—suffering from what for want of a better name is called marasmus, or wasting. This condition is the cause of an enormous number of deaths, yet it is usually very difficult to get such a case admitted into voluntary hospitals till it is in an almost hopeless condition. The same is true of older children with regard to rickets and malnutrition and debility—one of the group of cases referred to yesterday by Dr. Johnston.

To meet this difficulty we in Leeds have now a special infants hospital as part of our infant welfare scheme, situated in a large house in open grounds on the outskirts of the city, with accommodation for forty infants and young children up to five years. When a child is found at one of the infant welfare centres to be doing badly at home it is admitted into this institution. The infant welfare centres throughout the city thus act as the receiving stations

for these cases, and I think such institutional provision is an essential part of any complete scheme. The medical officer has also the opportunity of following up his cases, as one of our infant welfare doctors is the medical officer to the hospital. The hospital is also of great value as a training ground for future health visitors and infant welfare workers.

This then is the system of infant welfare work as it obtains in Leeds at present, and it seems to work fairly well. So far as one can judge, the figures indicate that the centres are appreciated by the mothers. Last year close on 2000 new babies under one were brought to the centres. If we allow for infants who die in the first week or two of life, and the considerable number in the well-to-do districts of the city, it would indicate that fully 25 per cent. of babies born are brought to the centres. In 1916 678 new children from one to five years were brought up.

Nevertheless these numbers are not nearly large enough. What I think we ought to aim at is that every baby should be brought under the beneficent influence of an infant welfare centre as soon as possible after it is born, just in the same way as later on it has to attend school, and if in order to do this it is necessary to establish centres until they are as numerous as schools, then let it be done. It would not be a bad plan if the centres were attached to elementary schools—it would emphasise the fact that they are for every child, and not only for the ailing ones—and they would be useful in teaching mothercraft to girls. As far as treatment of ailments is concerned, the system I advocate is that preventive work in keeping children well and treating minor ailments should be done at local branch centres and serious cases of illness referred to other medical agencies, either doctors or institutions. Routine minor surgical work should be referred to a central school and pre-school clinic, and major surgical work to hospitals.

It might be said that by this system medical students at teaching hospitals would never see minor ailments of children, but the students could attend at infant welfare centres, and it would be a most excellent thing if they did so. It would provide a much needed strengthening of the medical curriculum as regards knowledge of the hygiene of normal infancy and childhood, and widen immensely the outlook of the future practitioner on the possibilities of preventive medicine.

By Sir ARCHIBALD BUCHAN-HEPBURN, Chairman of the Association of County Councils of Scotland.

Mr. Chairman, ladies and gentlemen, I did not intend to take any part in the discussion, as I did not feel myself capable of doing so, but there is one point I should like to draw your attention to, speaking as I do as representing the local authorities in the County Councils' Association of Scotland. I have listened with great interest to all the cases mentioned, all of them interesting and many of them very valuable. There is one point in connection with that which I think has not been noticed at all, and I just ask you to consider it in your future work. I think you will all agree that the preservation of child life is undoubtedly a national work. Well, there is a tendency whenever any legislation takes place in regard to carrying out this or, in fact, any other matter of public benefit—there is a tendency on the part of the Government to put the greater part of the expense on the local rates. Now, those local rates are already very much overburdened, and I think you will also agree with me that it is in proportion to the amount of money up to a certain point that is expended that the efficiency of any method of child preservation is organised, and, therefore, when you are going on to consider this question and bring it before Parliament I do hope you will make it part and parcel of your demand that a very large contribution is made from Imperial funds to the local authorities, because it is impossible for them to carry out this thing in the elaborate way in which it ought to be done, and in which it is of national importance that it should be done, unless they receive more than the Government has hitherto given in most cases. That is all I wish to say, Mr. Chairman.

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(4) THEIR FUNCTION AS ELEMENTS IN A SCHOOL FOR MOTHERS.

By Mrs. LORRAIN SMITH, Infant Health Centre, Edinburgh.

The early days of organised work for the saving of child life saw the introduction of the title "School for Mothers," and this title was so manifestly appropriate that it was almost universally adopted, and appeared even in the Government memoranda upon the subject.

Later criticism has frightened us out of the use of it, and we have grown familiar with the same work under the ægis of the

infant health centre, or some similar title rather less flamboyant than the one the early enthusiasts adopted.

In the programme of this Conference we find both the old and the newer designations used with a hint that the school for mothers is indeed the parent idea, and that it is to actualise what is inherent in the idea that the maternity and child welfare centre is organised.

Neither title quite clearly indicate what is involved, but we may for the present occasion use them loosely to cover the same scheme of work.

This scheme of work includes three essential parts, viz.—

(1) Consultations conducted by a doctor.

(2) Home visitation of the cases attending the consultation, carried out by a trained worker, directed by the doctor.

(3) Organised instruction of the mothers who attend the consultation—on a special day, not a consultation day.

The whole scheme is based on the idea of education. In this case the primary effort is to educate the mother, for the co-operation of the mother is necessary to the solution of the problem of how to save our infant life, and to gain that co-operation must be the aim. Just in so far as this is kept in view will the centre be a success.

(1) The first element in the organisation is the consultation, and here begins the explicit education of the mother. It has probably needed a good deal of less evident educational effort to bring her to the consultation, and the very atmosphere of the centre from the time she crosses the threshold must have a silent influence upon her; but in the doctor's room she begins to find out what is expected of her. The doctor who him, or her, self does not realise this educational purpose entirely fails to fulfil his function. There must be no hurrying over the cases, ample time to gain the mother's confidence and to understand her as well as her baby must be given, and the standard must be preventive—not only the curing of existing ills but the establishment of a basis of health from which the babe may fight all possible foes. This can only be secured by education of the mother. The physician in charge of the centre might rapidly diagnose and treat the case, but it is impossible to deal rapidly with the mother. Her psychology and her social conditions must be appreciated. The problem of bringing up children as it affects her, and as it is determined by the particular circumstances of her life, must be understood.

That the consultation, or clinic, tends to become too busy to be really preventive and educational is, unfortunately, true; but the cure for this is not far to seek, and though the multiplication of consultations seems expensive for the community, the value of the work done at a consultation of limited size is so infinitely greater than at one which resembles a busy out-patient department of a hospital that it is sheer economy in the end.

All preventive work is idealistic, and must be gauged by standards far remote from the standards of immediate results, and this work is so new that its very alphabet has to be learnt before we can make any visible progress.

(2) The home visitation by the trained worker continues the education begun by the doctor, and is an absolutely essential part of the scheme. Successful work here also can be done only when sufficient time is given to secure the fullest understanding by the mother of the problem presented in the upbringing of her baby.

(3) The third element of the scheme is in the form of organised instruction, consisting of classes of various kinds, and especially of health teaching. Again we urge the value of intensive work. Even a small group of mothers who can each be brought to realise that nothing affecting the baby's comfort and well-being is unimportant, and that on her lies the responsibility of making the little life beautiful and happy as well as healthy is a valuable asset in the education of the community. Much can be taught in these small gatherings which could not be taught in any large class, while on the other hand an opportunity is given in group teaching of saying many things which cannot be said individually. It is, further, curious to observe that points are sometimes seized by the mothers in a simple health lecture which they seem not to have realised in the special individual instruction they may have had. The ideal for the organised teaching is that the health talks should be given by the doctor of the centre and by the superintendent. They can make use of opportunities as no stranger can, and they can co-ordinate the teaching so that no confusion arises in the mothers' minds—as may occur when a stranger in her lecture seems to contradict some of the tenets of the doctor in charge.

The more closely related is every activity of the centre the more its value is recognised. The fact that it all circles around the baby, and that whatever affects the baby's well-being finds its place at the centre must be made prominent.

That each activity is but another side of one scheme must be fully realised by workers and mothers alike. Only thus can the best educational work be achieved.

Towards this the doctor can help by showing an interest in every part of the work and by initiating further developments.

One word more as to the mothers' attitude towards all this effort. An objection to the name "School for Mothers" was that so crude a suggestion that mothers need educating would defeat its object to a great extent and frighten mothers away.

The conventionality of the working classes is greater even than the conventionality of others. Few among them enjoy doing anything which is not thoroughly approved by their neighbours and which has not the support of tradition. Consequently, before any idea can be acceptable among them it must have become one of the commonplaces of the general intelligence. It takes some time for an idea to reach this stage, and we all know how comparatively recent a growth is the whole movement for the better understanding of the infant, and the recognition that the mother can help in solving the problem. Consequently, can it be wondered at that among the mothers with whom we deal the thought that there is teaching offered in a subject in which they are all supposed to be proficient is looked upon with suspicion and even with derision? "Maternal instinct" is a phrase that had become a fetish, and to suggest that it is not always and in all circumstances sufficient guidance for the upbringing of a healthy family is still considered almost profane. It takes some courage and faith on the part of a mother to acknowledge her need of teaching when that confession (involving as it does a lack of the "maternal instinct") brings almost the stigma of disgrace. Mothers had to endure much scoffing even from their own men folk when they first began to attend a school for mothers, and they have even been honoured by the would-be humorous attentions of the cinema artist.

It is indeed wonderful that the schools have survived and flourished. While they are chary of visiting an educational centre, they can more easily be guided into the portals of a health department.

Considering how beset the educational work is with traditional and other hindrances, we can appreciate the necessity of carrying it on in close relation to the work of the consultation or clinic to which the mothers come with increasing readiness and confidence. It is

at the consultation that they first begin to realise the meaning of the scheme. It is there that we win their confidence and enlist their help. There is very soon no difficulty about their attitude to the centre, and their gratitude and appreciation is no mere form of words.

The eternal interest of the new life is a wonderful key to heart and mind, and I have watched some of the dullest and least intelligent-looking mothers grow bright and eager, and some of the dourest grow responsive and cordial, as they came week after week to the centre, with their child or children, for advice and instruction—which is *all* they get there.

By Miss ASHTON, Councillor, Manchester.

Mr. Chairman, ladies and gentlemen, I must apologise for appearing in the place of Dr. Niven, who, of course, is one of the medical officers of health we would all have been glad to hear as chairman of the Infant Life Preservation Committee of the city of Manchester. I wish, in the first place, to make a point of the extreme value our committee sets on the work of the voluntary worker—how the voluntary side of the schools has an immense influence for good, and how their work is combined with the official side of the work of the Corporation. For years the Schools for Mothers' Committees carried on their work quietly and steadily until they had sufficiently educated public opinion and the Corporation undertook the responsibility. This voluntary work we value so highly as keeping the human touch. The Corporation now pays for the whole of the administrative expenses of eight centres, and leaves the working of the social side in the hands of the Voluntary Committee—the old Schools for Mothers' Committee which started the work. The Corporation provides two medical women, who are entirely engaged in the work of baby consultations, two specialist doctors from the children's hospitals, who attend at the two baby clinics twice a week, the rent, rates, taxes, the salary of the superintendent, and the whole of the administrative expenses of the centres. The schools for mothers and consultations and clinics are run in eight houses, and we keep them as simple and as like the ordinary working-class house as is compatible with the room required. In some cases they are merely two ordinary working-class cottages knocked together, which are too small really for the work, but do very well to initiate it in

a poor district, where women are frightened of large and stately places, which they fear are institutions, and dread the long hours of wasted time spent in the out-patient departments of hospitals. You must take these schools for mothers right down to the mothers, for the mothers of the nation are the busiest people of the nation, and cannot leave the children under school age untended for hours in the morning while they take the one sick child out for treatment. The Voluntary Committee undertakes the whole of the classes in cooking, hygiene, sewing, cutting out, &c., at the infant consultation centres, quite independently from the Infant Life Committee, and they get their grant from the Education Committee and the Board of Education. A good deal has been said about the casual work, and I should wish to emphasise how these volunteers come on their set days week after week, year after year. The whole of the home visiting is done by paid workers, but we do value the special work that only the voluntary worker can give, and we value it quite as much for the information it gives the voluntary worker as for the mothers themselves. It is one of the means by which you get the whole community interested in the conditions in which our child life is being brought up, and it makes its impression on the whole of the town. To my mind what we require is schools for fathers as well as schools for mothers—(laughter)—educating the fathers, for one thing, in the idea that as more and more children are added to the family, so their allowance to the wife should go up in proportion. (Laughter.) As regards other agencies at work, in Manchester a voluntary infant babies' hospital was started in 1914 by the medical women of the town with voluntary help. Much of our health work in Manchester has been started by voluntary help, and I would mention for the comfort of those who are thinking of doing similar work that we are getting a proportion of the cost of the beds allocated to the Corporation from the Local Government Board. This is the beginning, I hope, of better things for other authorities later on, and we worked hard to get it. The Voluntary Committee has now started day nurseries in connection with two of the schools for mothers, where delicate infants can continue to spend the time up to school age, when they need more individual care than can be given in the busy home. These day nurseries are under the same roof, or closely contiguous to the school for mothers, and are superintended by its paid superintendent. They are also contemplating a dental clinic for mothers, and are glad to follow in the steps of one of those schools in London where they are

doing this work with a view to the promotion of the mother's health in nursing the infant. Our schools provide dinners for mothers at cost price, and we have found them valuable in maintaining the supply of milk for nursing mothers, and the Voluntary Committee are subscribing themselves half the cost of milk for infants where the doctor orders it as absolutely essential. They recover half of the cost from the mothers, and supply really good milk at the centres, which is difficult for mothers to obtain.

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(5) SPECIAL INSTRUCTION OF TEACHERS, SENIOR SCHOLARS, AND MOTHERS IN THE CARE OF CHILDREN BETWEEN INFANCY AND SCHOOL AGE, CO-OPERATION WITH SCHOOL BOARDS, AND THE REQUIREMENTS OF A MEDICAL HISTORY SHEET FOR CHILDREN REACHING SCHOOL AGE.

By Mrs. SOMERVILLE, Scottish Federation of Mothers' and Child Welfare Centres.

TEN years ago, when the systematic visitation of the babies was first organised in the Cowcaddens district of this city, the condition of the homes became familiar to many who had formerly only known them vaguely and at second hand. It was difficult to decide how and where to begin to try to improve the environment, for the whole environment, whether outside the building, in the entrance, or in the house, whether of the air, the cleanliness, the food, the clothing, or of the personal care—all told, for weal or for woe, in the present and in the future of each tiny babe. Food appeals to the understanding most directly, so an appeal was made to the School Board of Glasgow to make arrangements for a cookery class to be held in Dobbie's Loan School. Each visitor had six homes under her care. The only method of persuading the intending pupils to go was to call and conduct them personally to the class, and to remain with them and to take them home. After repeating the process many times the habit and way became second nature, and the class became, for a time at least, a recognised institution. Those were the really poor mothers out of the really poor homes. I have rarely seen any homes so utterly poor.

In Edinburgh the first experience was made in the North Canongate School. Bills had been widely distributed from door to door, and the children had taken some home from school. Three mem-

bers of the Edinburgh School Board came to witness the opening; the cookery teacher, in the cleanest of caps and aprons, waited, with cheerful fire and all needful materials. The two secretaries of the Voluntary Health Visitors were ready to welcome the mothers and to take down names. Six ladies were prepared to look after the babies while the mothers enjoyed the lesson. Quarter of an hour passed; not *one* pupil appeared. Determined not to be defeated, the secretaries went into the streets and begged the women to come in. A class of twenty was secured. All did not join the class, but a sufficient number did. From that day to this the classes under the School Board have increased in popularity. For the present session there are over *six hundred* enrolments. In every district of the city there is a centre. If the most needy type of mother is not the most ready to take advantage of the help afforded, that fact is at the base of the social problem, and applies to every form of opportunity placed within reach.

By far the most popular classes are those for cutting out new and for the remodelling of old garments.

This is a syllabus, &c.—

REGENT ROAD CONTINUATION CLASSES, EDINBURGH.

Syllabus for the Cutting-out Classes for Women.

1. Examination of old garments brought by the pupils.—Advice given by the teacher as to the most suitable purpose to which the material may be put.
2. Unpicking preparatory to remodelling.—Utilising all the good parts of the old garment.
3. Demonstrations on the cutting out of garments or the parts of garments.—Practice in the cutting out of paper patterns before cutting out the material.
4. How to take measurements. How to fit on. How to proceed after fitting on.
5. Renovating or remodelling old garments into fashionable shapes or changing them into suitable dresses for girls.
6. The making of popular garments for children from old garments or suits, or from remnants—coats, overcoats, kilts, school dresses, suits, &c.
7. The utilising of old material for underclothing for children.
8. The making of overalls and similar garments from strong material.
9. Practice in the use of the sewing machine.

This is a syllabus of the work as drafted by one of the head-masters who has done much to encourage the mothers in the neighbourhood of his school. The reason for the popularity of a class of this kind is not far to seek. In one course of lessons in cookery enough can be learned to meet the simple needs of the home. "I can cook all I can get," said one mother, "but I canna cut oot, and I canna cut doon." The thrift in being able to cut out and to cut down is so evident that the mothers come session after session and make garments for themselves and for their children. Most of the members have, at one time or another during these years, taken classes in cookery, in sick nursing, in first aid, in motherhood, and infant life. The last-named lessons were given by a lady doctor employed by the Board for this special purpose.

At the beginning of the organisation of these classes the School Board Committee could not, by its regulations, teach in any premises but its own. This limited the membership to the mothers who were sufficiently alert to wish to go "back to school." Since the outbreak of the war these regulations have been broken down, and now a teacher will be sent anywhere, to any hall or any room suitable for the purpose, provided that the rules as to number and attendances are recognised. This new condition of affairs is greatly to the benefit of the mothers who have not yet learned the way back to school, but who are perfectly at home in the mission hall of the district.

There still remained a large group of mothers not sufficiently interested to go regularly to a stated class of any kind, and to reach these and to induce them by degrees to join regular classes a third effort had to be made. A grant from the Educational Fund of the Burgh Insurance Committee made it possible to borrow a specially suitable teacher from the School Board, and to let her teach anywhere and everywhere without any regulations, but with final regulations always in view. In this way lessons in food values were given to over 1500 women in larger or smaller meetings; lessons were given in individual homes during the mornings of five days in the week for a period of six months; groups of four mothers brought the materials for their Saturday and Sunday dinners, cooked the food in a little kitchen belonging to the School Board, and carried home in triumph huge pies, large stews, and formidable pots of soup. The children awaited with shining eyes the return of such mothers!

From these unregulated efforts four regular cookery classes were formed.

In thinking of the improvement of the home, why should thoughts turn to the School Board.

1. Because here is to be found an organisation, an equipment on permanent lines ready for the purposes of education. In the Continuation Class there is no limit to continuation, and the mother, applying her knowledge at once and directly to the home, makes an excellent pupil with excellent practical results.
2. Because the mothers are interested in the schools to which their children go, and the headmasters know their children, and are the friends of the mothers.
3. Because these classes appeal to the whole community of mothers, and can be in the future so developed as to cover every type of mother and every kind of subject. The movement is still only in its infancy, and is just revealing its great possibilities.
4. Because by inviting all the mothers to the school to which their children go it is possible to reach every mother with young children.

There is so much to learn, so much need for improvement, that every effort in any form is an effort to be encouraged.

For the linking up of the smaller efforts there would seem to be required a teacher of such kind as was made possible by the Insurance Grant. A teacher might be engaged and set apart for social service, either by the School Board, the National Health Insurance Committee, or the Child Welfare Committee of the Public Health Department, or perhaps by all three combined—if the three could find suitable terms of agreement.

By Miss BANNATYNE, Glasgow School Board.

Mr. Chairman, ladies and gentlemen, the point I have been asked to touch upon is the possible relationship between schools for mothers and the educational authority, or, in a rather wider sense, what the educational authority might do in educating girls and women upon this very important subject. Now, I would like to say straight away that I think there is a tendency to-day to exaggerate what can be done on this matter in connection with the senior girls in our elementary schools. A great many people seem to think that it

is the fault of the schools that girls between the ages of twelve and fourteen years are not sent out proficient cooks, proficient laundresses, proficient future mothers, and I think those who have the actual teaching of those girls will support me in saying that this is far too large a demand for the schools to meet. (Applause.) We may give some rudimentary instruction on these matters to our senior girls in the elementary schools; they may carry some remembrance of that instruction through the six or seven or eight working years that follow the elementary school, but to expect that when they reach wifehood and motherhood they will be able to put that recollection into practical and efficient practice is, I think, nonsense. (Applause.) We must begin at a later stage. We must begin with the mothers, or at any rate with the wives in schools for mothers. Now, theoretically the School Board ought to be the body to supply teachers for these schools for mothers. If we are to do this efficiently we must add to the qualifications of those teachers that we are at present sending into elementary schools. At the present moment their theory is all right. At the present moment their manipulation of dishes or of articles of clothing and sewing is all right, but a knowledge of the theory of what ought to exist in the homes of our poorer people, and a knowledge of the way to manipulate dishes and articles of clothing are very far removed from the power to induce the mothers concerned to practise the theory, make the dishes and clothing in their own homes. A great deal has been said in Scotland about the sovereign qualities of porridge and pease brose. We are still continually told that our ancestors lived and throve on those two articles of diet. Now, the conditions of Scotland fifty years ago even, certainly one hundred years ago, and the conditions of Glasgow at the present day are totally different things. The kind of labour that led to the appetite for porridge and pease brose is not the kind of labour that the great majority of our working men and working women are engaged in to-day in Glasgow. Unless your cooking syllabus, *e.g.*, is going to meet the needs of the workers not only on economic and nourishing lines but also on tempting lines, it is no good to teach that syllabus in your schools for mothers. The teacher in these schools must by first-hand experience first of all know how she would lay out a variety of small incomes. She must know the demands made on a woman who has to expend, say, 28s. or 30s. on a husband and five children under fourteen years of age, not only in the matter of food but in the matter of clothing

and everything else. She must know also what a woman can do who has 50s. or 60s. per week, and the same size of family. Secondly, she must be a woman with an enormous amount of insight and perseverance. At all those meetings we are constantly told how drunkenness produces a great deal of poverty and disease, how bad housing produces it, and so forth. We are all too apt to forget that drunkenness and bad housing are just as much symptoms as causes, and when you get back to the root of the matter you generally find that in the men and women who are producing the least thriving children—the women who require most advice and help in bringing up their children—there is some constitutional defect, mental, moral, or physical. I do not say this in the spirit of blame, but I am merely stating a fact and stating it sympathetically. There is a lack of will power, a lack of vitality, a lack of ambition, a lack of power of sustained effort. You do not find as a general rule that a woman with purpose, energy, and strong will power is the mother of dirty, neglected, sickly babies, just as you do not find a man of good will power, industry, and ambition doing labour that is only paid for at the rate of 15s. or 16s. per week. The difficulty in those schools for mothers is precisely this. The constitutional difficulties that lead to the disease of sickly or inefficiently brought up children is the constitutional difficulty you have to combat in trying to make them do better, and unless you can rouse their will power, and their interest in the child sufficiently to induce them to meet the labour, fatigue, and self-sacrifice involved, you will not get much further forward in spite of all the theoretical instruction you may give them. That is the reason why I say that any hard and fast rule by which the educational authorities should supply the teaching and staffing in those schools must depend upon the personal qualifications of the teachers the authorities can offer. You may get better ones outside the educational authority, but you are entitled, I consider, to demand of the educational authority that they shall produce such women for you. And remember that it is not a question of the voluntary *versus* the professional worker. The fact that a woman is a voluntary or a professional worker is mainly a matter of accident. The same type of women would do the work equally well whether she is paid for it or does it for love of the work, and we find as wooden officials as we ever find useless voluntary workers. (Applause.) There is only one other point mentioned in this sub-section, namely, the keeping of a medical register for children up to the age of five

years, when the educational authority will continue it. There is no doubt that much co-operation might at this moment exist which does not exist between the health and the educational authorities, because sometimes we find in school children symptoms of illness or neglect that the health authorities should deal with in the younger members of that family. In the same way, if the health authority always informed us what they detected in the children before the age of five years, we might do much in the way of continuing their treatment. We are very apt to forget, not the old problem that we lose sight of the wood because of the trees, but its reverse, viz., that we must not lose sight of the trees because of the wood. Not long ago a mother whom I was seeing on the point that she had not provided spectacles for her children—she had been told by the medical authorities, by the school nurses, and by the teachers to provide them—turned round in a fit of anger and said to me, "I have taken the trouble to give you every detail I know about that child—every illness it has had, everything about myself, everything about its father. Surely you can be content with that, and not worry any further about the child"! That is the danger we all feel in all social work, and never more than in work connected with young children that in our enthusiasm and in our pride in the perfect working of a correlated scheme we may somehow overlook both mother and child. I have no wish to minimise the importance of reports, but remember that we are not out to create reports, or records, or statistics. We are out to cure the need for future statistics and records. (Applause.)

By Mrs. PICKERING, Govan School Board.

Mr. Chairman, ladies and gentlemen, I have not much to add to what Miss Bannatyne has already so well said. If the school age was raised to fifteen years the matter, of course, would be much simpler. I think in London they have schools where girls go for the last few months of their school life. They have instruction in the management of babies, cookery, mending, &c. It seems to me it would be a very good thing if some of our big girls were drafted into the day nurseries to get practical training in the management of children, as so many mothers want the help of their daughters to look after the babies while the mother is out working, and had the girl a practical knowledge it would be much to the baby's advantage. Then there is the

question of the mothers. We, I think, in the Govan School Board have the same difficulty as Mrs. Somerville has mentioned. We find that the mothers do not like to go to the schools for lectures where the children are educated. We found this out lately while we have been working on the Patriotic Food League. We have there had demonstration lessons in cookery for the women, and we find that when we have these meetings not in the schools they are very much better attended. We get in among the women and speak to them, and we find that we get a great deal of information from them. There is another question. We charge a penny for admission, but we give them a cup of tea, which they all seem to enjoy very much, and it is a great help towards the attendance. There is another subject here I would like to mention that does not come under the School Board. We in the School Board get the children at the age of five years, and we keep them in charge until they are fourteen years of age. They come in the morning at nine or half-past nine o'clock, as the case may be, and we have charge of those children, and are responsible for them until they get home at, say, four o'clock. But what becomes of the children after four o'clock? We have no control over them after that hour, and most of the bad habits they learn are all found in the street after school hours, and I think if something could be done in the way of legislation to treat that state of matters it would be a good thing—even if we had the old curfew bell back again, and see that all children are sent to bed by eight o'clock. But the mothers say that they cannot put the children to bed if they have only one room, so that it is a question for the Housing Committee again. (Applause.)

By Mr. J. CLARK, Clerk to Glasgow School Board.

One of the most notable features of this century is the amount of attention that is being given to the whole physical, mental, and moral life of the child. This is especially evidenced in recent legislation. The Education (Scotland) Act, 1908, and the Children Act, 1908, for example, do not confine themselves to the education of the child in the narrower sense. They deal with him in every aspect—physical, mental, social, and moral.

In dealing with the child there is need for the closest possible co-operation among the various authorities. At present public health authorities are charged with the supervision of the child

during the first year, and then there is a break, often fraught with serious consequences, until his fifth year, when the child is handed over to the care of the education authority. I was glad to hear yesterday that that No Man's Land, where so much harm has been done in the past, will soon cease to exist, that in future the child will be under supervision right up to the period when he enters upon his education properly so-called, that his medical history will be available when he enters school, and that in this way he will be under continual care until he reaches the age of adolescence. Much is to be said for throwing this work on the education authority, for, apart from housing and other economic questions, which are outside their sphere, what lies at the basis of the trouble is ignorance, and ignorance is the one thing above all which it is the duty of the education authorities to dispel. How are they best able to do it? First of all, they must ensure that in their training teachers shall obtain a sound knowledge of hygiene and the laws of health, and ability to give instruction to children in these subjects. This is more particularly necessary in respect to the older children, and in this district, so far as the girls are concerned, much attention is devoted to this question. The work of the teachers is supplemented by that of women doctors, who can speak with much greater authority upon certain of the points which it is necessary to put before the children. They deal not only with questions of physical, but also with certain questions of moral hygiene, for it is the bounden duty of an education authority to see that every pupil leaves school with a good idea of what constitutes a healthy condition of living and an intolerance of wrong conditions of life.

Instruction is also given to older girls in continuation classes, but that question has been adequately dealt with by a former speaker.

In regard to mothers there are various ways in which education authorities reach them. For example, a great deal of good is indirectly done through medical inspection. The mere fact that the children have to be stripped to be medically examined has an important bearing on the question of cleanliness. Much good is also being done by the nurses who follow up cases for medical treatment, and afternoon classes of the most practical kind are established for mothers. If all this is to be done satisfactorily there must, as has been said, be the closest co-operation among the various public authorities. There never was a time when the duty was more incumbent upon us than it is just now. The knowledge that the

child is the greatest national asset is being brought home to us more and more day by day by the losses of manhood in the great European war, and it is especially the duty of those of us who are at home to fight the secret enemy in our midst, the enemy that is sniping the nation's children.

Discussion.

Mrs. Hardie—Mr. Chairman, I just wish to say one word with regard to Miss Bannatyne's remarks regarding the suggestion that the older girls in schools should be taught the care of babies. It seems to me, as she very ably pointed out, that there is a considerable gap between leaving school and taking up those duties, and, in connection with a girl in school up to the age of fourteen years, the School Board has quite enough to do to fit her for the wage-earning period which comes between her leaving school and taking up the duties of motherhood. I have always held that a girl or woman has an individual existence apart from girlhood or motherhood, and I think the period for instructing women in the duties of motherhood should come at a very much later period. We find that the children of the better-off people are kept in school until they are sixteen years of age, and even much older, and to crowd into the curriculum of the elementary school child the care of children, I think, is an absurd suggestion. My own point is that it does not matter so much what you teach the child or individual if the School Board and the education authorities and the parent combined can turn out intelligent boys and girls. When a woman is up against the care of children she will very soon learn and find out exactly how to bring up the child. Whatever work they are up against, they will always find out the proper way to do it, and I certainly object to girls of fourteen years of age, a very large proportion of whom will never be mothers, being instructed in the duties of motherhood, because, after all, there are a big number of women who have never married, and, if we carry on the slaughter at the present time of the young lads of the nation, there will be a much bigger proportion in future who will never have an opportunity of putting this education into practice; so that where instruction is needed this particular instruction should be given at a later date. Of course, that is not to suggest, as Mrs. Pickering did, that we should take children out of the schools and draft them into day nurseries. If it is necessary to bring compulsion to bear in order to teach people to look after babies, a woman, soon after she is married or is about to become a mother, should then be compelled to attend classes.

Lady Carlaw Martin (Edinburgh)—Mr. Chairman, I have always been keenly interested in the training of domestic science, not only as a form of technical education but for its great social and economic value in the life of the people. You must remember that these girls have to take a share in the home life from a very early period. As a School Board member I introduced a live baby into the schools ten years ago, and a very valuable help it was in making the training of the older girls and the mothers more practical. I would make this a compulsory subject for every woman. I think that if men are to undergo compulsory physical training, I see no reason why women should not be asked to contribute to the social welfare of the community by acquiring a knowledge of all that relates to the home. I quite agree with what Mr. Clark has said that this great system and scheme you are promoting to-day is needed because of the ignorance of the many mothers, and that much of your legislation—welfare schemes, medical inspection of schools, health insurance—is useless unless you have got the women trained to carry out the domestic work of the homes in a proper

manner. I feel it to be a most important and essential subject, and, without this, progress will be slow. Health, comfort, economy, temperance, depend upon it.

Miss PEARSON (Four Boroughs Maternity Clinics, London)—Mr. Chairman, if I might be allowed to take up a few minutes, I think there is one point of view that has been rather left out in the papers that have been read. We hear so much about teaching a mother who already has such a handful that she is quite unable to make the best use of her opportunities. I think we do not lay enough stress on those early years of marriage when the mother is neither overworked nor underfed, nor worried to death by children. When we take the state of affairs in the case of a woman with a family of five or six children of the usual poor health, I think we waste a great deal of our time and hers by trying to teach her things which she is quite incapable of carrying out, and, though she may agree with our ideals, she knows that they can never apply to her, and, instead of helping her, we have discouraged her. If we could pay more attention to the young woman who is going to have her first baby, when she has plenty of time and is keen and eager to learn, and when she has the interest and pride of her husband to encourage her in the fight against the horrible things by which too many of them are surrounded, I think we should save an enormous waste of energy. I do not think that until we pay more attention to the young woman who is going to have her first baby we shall really prevail against the conditions we are up against.

The CHAIRMAN—There is no concensus of opinion yet as to the proper age at which the teaching of motherhood should begin. Most of the speakers to-day have been quite clear on that point.

2nd Day—Morning Sitting, 12 o'clock.

IV.—THE PLACE OF THE CRECHE, KINDERGARTEN, AND COUNTRY HOME IN THE MOVEMENT.

(1) THE CRECHE.

By Mr. FRANCIS HENDERSON, Chairman, Glasgow Day Nurseries Association.

I LISTENED very attentively to all that was said by the various speakers yesterday with regard to the scope and intention of the Acts we are met here to discuss and the purpose of the Legislature in enacting them, and I have perused all the documents which were handed to us.

It is quite clear from both the Acts and also the memorandum that the first move in this matter in any county or burgh must be made by the local authority which has to decide whether it will exercise the powers entrusted to it by Parliament, and to what extent

it will do so. Thereafter the local authority must consider how it can best adapt its administrative machinery to the carrying out of the new duties entrusted to it.

If it is not possible for the local authority to do all the work themselves, they are to constitute themselves an organising centre for all the voluntary agencies that concern themselves with the promotion of child welfare in the district. These agencies specifically include day nurseries. It is laid down that it is of the first importance that the local authority should be in touch with all these child welfare institutions, &c., and that the local authority is to provide facilities for better correlation and organisation.

The local authority is to ascertain what agencies or institutions are available in its district, and, after conferring, I presume, with those in charge of such agencies, &c., is thereafter to prepare a comprehensive scheme for the whole district for submission to the Local Government Board.

The general outline of such a scheme is given in the memorandum, and it is clearly intended to include day nurseries, and the scheme must contain a specific provision in regard to day nurseries fixing the payment to be made by the mothers towards the cost of the food provided, and generally for the care of the children.

Under the regulations it is contemplated that the local authority may give grants in aid to approved institutions or agencies included in its scheme.

The association which I represent has been established in Glasgow for over thirty years, and has a splendid record of good and useful work done. We have six nurseries in different districts, each of which is in the care of an experienced matron, with assistants. The admissions of children last year exceeded 28,000.

There is a committee of ladies to each nursery, and these ladies devote themselves to promote in every way they can the welfare of the children with an enthusiasm which is beyond all praise.

Our Milton Nursery adjoins vacant ground belonging to the Corporation, upon which a child welfare centre could be established. Our nursery in Hutchesontown is placed on the banks of the Clyde, facing the Green, and is favourably situated for a similar development.

We have recently had presented to us a large piece of ground in the Mile-End district, and we will be only too glad to co-operate with the Corporation in making full use of such an opportunity of placing in that congested area an ideal child welfare centre and playground.

By Mrs. W. G. BLACK, President, Executive Committee, Glasgow Day Nurseries Association.

THE Glasgow Day Nurseries' Association, having completed its thirty-third year, is entitled, it will be admitted, to claim to be the pioneer association in the city for the care of the little child from infancy to the school age. The nation has at last awakened to the importance to the Empire of doing everything possible to assist mothers in crowded districts, not only to be strong and healthy themselves, but so to bring up their children that there may be the maximum number of strong, healthy, and therefore happy, men and women to develop the future greatness of the Empire.

The first step in any scheme for infant welfare must be the recognition of the place of the midwife. She, during the period of pregnancy, is the natural health visitor of the expectant mother, of whom she must have the care at the time of confinement, and at the end of the ten days it is her duty to hand over mother and child to the voluntary health visitor, who, in turn, should direct the mother to the nearest child consultation centre, and also, when desirable, to a suitable day nursery or crèche. Without the co-operation of the midwife it is doubtful if the crèche can attain all that is desired.

In order to secure this co-operation the crèche should actually be a maternity centre in telephonic communication with hospital and nurses.

The ideal position for a day nursery is a considerable piece of open ground in a crowded district, on which, without spoiling the necessary playground, buildings may be erected, carefully planned, but not of costly material. Such buildings should include—

1. A transmission centre to the maternity hospital.
2. A centre for help (and if necessary for the provision of suitable food) and instruction for expectant mothers.
3. A room for infant consultations to which mothers, other than those whose children actually attend the nursery, should be encouraged to bring their little ones for advice in matters of health, feeding, and clothing. This department should also have special facilities for accelerating the admission of suffering little ones for treatment in a hospital for sick children.

In this connection it may be found desirable to provide a few beds for children suffering from malnutrition or minor ailments likely

to be relieved if the child is given a short period of special care and well-selected food.

Such beds could readily be provided in nurseries affording accommodation for the children of munition workers, in which the children are really weekly boarders, only returning to their mothers for the week-end.

The nursery proper should be large and airy. There should be a well-equipped receiving room, in which the children, after being bathed, would be dressed in nursery clothes, their own garments meantime being sterilised, ready to be donned before leaving in the evening—a most useful precaution to prevent the spread of infection, &c.

It should have an airy, if possible a sunny, room for infants up to eighteen months, and a large nursery for older children; or, better still, there might in addition be a kindergarten room attached, and this room might very properly be used for the purposes of a children's clinic, attendance at which would enable a complete record to be kept of the health and general condition of each nursery child, which would be of value when the child entered on school life.

I have incidentally mentioned the playground—often a serious difficulty in such districts as we have under consideration, but not, I believe, insurmountable. A large paved playground supplied with swings and other means of enjoyment, such as is occasionally provided for older children, is valueless for the little ones; a smaller space is needed, which, being fairly closely railed in, provides the necessary safety, and adequate supervision can be maintained. Such spaces exist now in not a few of our wider streets, apparently provided principally to be looked at! I have in my mind two such spaces, each situated near one of our nurseries, where all that is needed is that the matron should be supplied with a key and permission to use the ground; what pleasanter object-lesson for the mothers in the neighbourhood than a band of little ones enjoying themselves in the open on all days when the fickleness of our climate permits? The co-operation of the city authorities is what is needed here.

It may be asked, who is to be helped in the day nursery?

Till now the benefit has, to a certain extent, been limited to the children of the mother who had to leave her home to work—and during war time, at all events, the number of such mothers is likely to be largely increased. But there are other mothers who should have a safe, comfortable place in which they may have their children cared

for either by the day or for a few hours at moderate cost. I refer to the mother living up many stairs, who finds it almost impossible to take her little family out at all until the children are old enough to get about themselves. The mother who wishes really to thorough clean her house undistracted by the claims of her flock; the mother desirous of giving undivided attention to the family shopping; or, yet again, the mother to whom a couple of restful hours may make all the difference between being a worried scold with an uncomfortable home and a fresh, pleasant wife with a well-cared-for family ready to welcome the return from work of the man of the house.

The accomplishment of all that I have outlined means much self-sacrificing individual effort, and the expenditure of a considerable amount of money. If, however, the community and nation have really awakened to the necessity for helping to improve the standard of health of the future generation, then the lack of money should be no hindrance, for who, especially at a time of stress like the present, has come forward with a good cause without meeting with a ready response?

By Mrs. ANDREW EADIE, Joint-Convener, Hutchesontown Day Nursery and Training Centre.

I HAVE been asked to speak to you briefly on the subject of the student in the day nursery. Last September the committee of the Hutchesontown Day Nursery took paying probationers, and began their work as a training centre.

The student is expected to train for four months.

During that time she is in constant touch with tiny babies and toddlers up to school age. She learns how to bath the baby, to dress it, to give it the proper food at the proper time. She sees the baby weighed, and can follow its improvement under the nursery conditions.

During the term of training each student is expected to spend a certain time at the Phœnix Park Kindergarten. This privilege has been granted by the committee of the P.P.K.G. There the student has the advantage of studying the methods adopted by the trained teachers in the K.G. She gets an insight into the games and occupations given to the children, which she can use in the nursery.

Every Thursday a student is present at the infant consultation held by Dr. Barbara Sutherland in the clinic next door to the nursery. There the student can see how the doctor examines the

child, and, by using her eyes and ears, can gain much valuable knowledge. It rests with the student to profit by the experience there.

At the end of the four months' training the student is examined in the practical and theoretical phase of her work. In the practical examination she has to bath a baby and dress it. She must show a set of clothes for a child which she has made. She must know how to prepare the food given to the children in the nursery, and also how to make a poultice, &c.

In the written examination she must prove that she has an intelligent grasp of the lectures which the matron has given.

The certificate which the student will get is based on the results of the practical work and the written paper.

We are now prepared to take daily students from other training schools. These students pay a small fee, and spend only a part of the day in the nursery, and do not sit for an examination.

In the day nursery we look to the good we can do to the child.

In the day nursery *as a training centre* our usefulness is very far reaching. We are preparing these young girls to be practical nurses and mothers. We have all seen the ignorant young mother who has had no experience of young child life. These girls are getting knowledge which will benefit them all their lives. Their sympathies will be awakened, and they will learn lessons of self-control and patience, which will be of lasting value.

In my opinion we cannot estimate too highly the value of the day nursery as a training centre.

By Rev. BUCHANAN BLAKE, B.D., Scottish Christian Social Union.

THIS institution, as we have heard, was designed on the lines of the highest philanthropy to show how some at least of our working women might find their children adequately cared for while they were at work. The endeavour has been successful in the measure in which it has been adopted, and good results have followed. But the need is too great to be met by philanthropic and voluntary methods. Here the way has only been pointed out, and a lead has been given which it is now obligatory on the whole community to undertake.

In the story of the fabled Danaides of ancient Greece the task was to fill an ever-emptying vessel, but the policy of this Congress is to seek for some effective way, not merely of emptying ever-filling buckets, but of turning off the tap. What can we do to meet the evil condition of things the crèche was intended to ameliorate?

Now, first of all, we find that young women in the child-bearing period with children of tender years are required by prevailing conditions to go out to work. Thus man, the husband and the father, has failed in his fundamental obligation to maintain and support the wife and the mother. In this way, too, the care of the child, which should be a mother's first charge, is rolled on the shoulders of others, and natural responsibility decreased. It is a calamity to the nation, for which society ultimately foots the bill, to allow the vitality of mother or child in any way to be lessened. Consequently mothers with young children should not be allowed to work outside their own homes. We need not say that the place of all women is in the home, but certainly the place of all mothers is there.

But it is said that the wages received by the father is in many cases not adequate to the maintenance of a home. They do not always supply enough to feed, clothe, and house the wife and children. If this is so there is a crying evil somewhere, for the employer who engages workers should not exploit the workers, but see that they are able to come to work without home harassment. A happy, satisfied workman is the master's best worker, the man out of whom he will get the most.

But, again, it is obvious that even where wages are adequate they do not always find their way to the objects for which they are paid, the maintenance of the home. *En route* from the yard to the home men fall among thieves, like the man from Jerusalem to Jericho, and they are robbed by publicans and bookies who flauntingly ply their hurtful profiteering in the light of heaven. The mother has a legal, nay, better, a natural, right to what is required for the home life. That should be secured to her by law, as it is assured to her in all well-ordered houses. The cases of the malappropriation of wages can soon enough be ascertained, and this leakage can be stopped. The causes of it can also be stopped, as, to some extent, in the closing of public-houses on Saturday afternoons, has been already done.

Again, alas! women waste their means. Perhaps they are more sinned against than sinning here. But the practical education of women in mothercraft and household economy should be the first aim of a reasonable education code. There are mothers who, alas! so unnaturally will neglect their children, and the common well-being of the State demands special treatment for such persons with their dirty houses and verminous children. Are our health doctors and sanitary inspectors armed with sufficient powers? There are some

incurable cases. From such the children should be removed. Some women leave their children outside public-houses while they go in for drink. The children's charter, which forbade children going into public-houses, requires amendment here.

For all mothers and children places like a crèche are absolutely necessary, and they should be found within reach of all mothers, a suitably protected rest centre in all our congested areas. The Duchess of Montrose suggested such on the roofs of houses. This does not commend itself to many, but surely if all back lands and works were removed from the central spaces between high blocks a suitable place could be secured there for all mothers and young children, instead of the closemouths and stair steps. There is enough money in the Common Good to sweep away these back lands if our Corporations would attend to the common good of the city. It would cost money at first, but think of the stronger race that might be reared and the better, happier conditions in which our toiling masses could live. Are our boys who have bravely fought for us to come back to the same houses where a rickety generation may still emerge?

House building will require to be the business of the city if crèches and child centres are to be within the reach of all mothers. Children are to be seen playing, not on the streets, but in the open spaces of the new city of God and man. Too long food and housing, the vital elements of a nation's welfare, have been in the hands of private enterprise, and men have become rich at the expense of the health and vitality of the nation. The charge for the city's well-being must no longer fall on the shoulders of the generous few whose names appear on all our charitable lists, but on all, and so those should be made to pay their share who draw benefit from the city's advance, and who consume it on their pleasures, vices, and passions. The city must work for all by all.

If in old Roman days the mother of Agricola's children could produce her strong, healthy boys, and say, "These are my jewels," surely in our more privileged days the coming race should be the glory of the land.

By WM. ROBERTSON, M.D., D.P.H., Medical Officer of Health, Leith.

WHILE it may be true to affirm that the crèche should not be necessary, it is also true to say that in some districts, industrial centres especially, such an institution is a public necessity. When a con-

dition of social Utopianism comes into being there will be no need for women to go out to work. The crèche may then be disestablished. But those of us who see what is going on in our dingy streets, narrow alleyways, and unsavoury centres, realise only too well what a God-send such a place as a crèche must be to the infant left to the tender mercies of an old, drunken hag, an ignorant neighbour, or an indifferent and irresponsible small sister or brother. Compare the feeding, the salubrity, or the tone in the slum home with that of a clean, airy crèche where methodical attendance is given to every child left in the keeping of an attendant. It will not be enough to argue in the negative. The ideal may be a township devoid of child welfare schemes, just as the ideal of the medical officer of health is a community free from tuberculosis. But we must work up to the ideal by improving and educating those who render child welfare and other State schemes necessary.

The amount of good work performed by voluntary organisation in the tilling of the soil for the welfare of children cannot be overestimated. Voluntaryism has, in fact, made the path easier for the present-day administrator; but when the State steps in and signifies its preparedness to pay half the cost of child welfare schemes the time appears to be ripe to co-opt all voluntary agencies and to municipalise them. The procedure would immediately arrest a drain upon the generous subscriber, and it would centralise effort.

Every crèche should be situated in a locality where the maximum amount of sunshine will play upon the windows and search the occupied rooms. Flat roofs should be the fashion, so that in crowded areas the maximum amount of air space could be advantageously used. If possible, verandahs, with glass roofs and fronts, should be incorporated in the structure. Lastly, the interior should be attractive. Mothers taught to bring their infants to such a place will be edified and impressed. Our chief aim must be to educate that class which overlooks the great importance of care, cleanliness, and common sense in promoting good health.

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(2) DINNER TABLES FOR NURSING AND EXPECTANT MOTHERS AND THE MILK DEPOT.

By Mrs. HOPE GORDON, Glasgow Infant Health Visitors' Association.

In some minds there is a prejudice against dinner tables for nursing and expectant mothers. It is feared that this method of combating

the high death-rate may have the effect of pauperising the people it is intended to benefit, making them thriftless and lazy, and that the very vices the child welfare movement is trying to cure may thereby be encouraged.

The experience of the Cowcaddens child welfare centre shows these fears to be groundless. On the contrary, the workers in this centre hold that this is the most direct and economical method of treating malnutrition, one of the main causes of miscarriage and birth debility. The second annual report of the Infant Health Visitors' Association, 1908-1909 (Mrs. Hannay, convener) makes the following statement:—"This branch of the work is perhaps the most encouraging of all, as one sees the fruits of it day by day. After a week or two of good and regular food, the mothers look so much brighter and better, and they say how much strengthened and heartened they feel for their daily work and the care of their little ones. We all know the enormous mortality amongst infants is mainly due to malnutrition through insufficient feeding. Surely therefore a work which has for its object the nourishing of the mother before birth and during the nursing period, so that the child may have a better start for the battle of life, must appeal to all good and thoughtful citizens."

This dinner table was carried on during the winters of 1907, 1908, and 1909, *i.e.*, during the period of unemployment. On an average 5500 dinners were supplied from October to April. The report quoted above may be taken as an average one, and is as follows:—"Of the 5721 dinners supplied, 4583 were paid for by the women themselves, 1049 were paid for by the visitors or by the Charity Organisation Society, and only 89 were really free." The deficit was made up by subscriptions, and many good friends sent gifts in kind.

In order to encourage the mothers in better economy, a cookery class was run alongside, by the superintendent, Mrs. Scott, teacher of cookery to the School Board of Glasgow; in this way the women not only acquired the taste for good nourishing food, but they also learned how to make it. This they greatly appreciated. Eventually the cookery class paid itself. In the course of two sessions of demonstration and practical lessons some proved excellent cooks. One confided in us the following information:—"My man has taken quite a new notion of me, since he gets something different for his supper every night"!

The Cowcaddens dinner table was re-opened on 9th March, 1914, not because of destitution and unemployment, but with a view to combat the high infant death-rate from birth, debility, and immaturity as stated in report of the officer of health, and through him a grant of £50 was given by the Corporation for working expenses, wages, &c., on the understanding that there was to be no closing during the summer months. The use of the Women and Girls' Club in 36 Milton Lane was given by the Scottish Christian Union, but on New Year's Day, 1915, the new Cosy Corner Restaurant was opened, and ever since the mothers' dinner table has had its headquarters here, under the efficient management of Mrs. Scott. Results have been good. A visible improvement is seen in the physique of the mothers and the infants, even the most delicate generally become well and thriving.

The dinners, which before the war cost 2d. each, now cost 6d., owing to the great rise in the price of food and higher expenses. During the month of March last 674 dinners were served for 614, of which the women themselves paid 3d. each, and 60 were supplied in necessitous cases free of charge (on recommendation of the district nurse under Dr. Chalmers).

By Mrs. GOURLAY, President, British Women's Temperance Association (S.C.U.) Glasgow District Union.

THE dinner table was begun in 1908, a winter of great destitution. It was carried on till 1911, and given up in 1914, when the work was scarce, and it was found a number of deaths were due to malnutrition. In the Mothers' Welcome, Phœnix Park, on an average thirty mothers dine five days a week. They get a nourishing, two-course dinner for 2½d., which is half-price. The Corporation kindly give a grant of £50, from which the deficit is made up. In a short time there is a marked improvement in the appearance of the women. There is a cookery class in connection with it, but the dinner table is the best illustration, teaching as well as cookery order and cleanliness, which may be carried out in their own homes.

This has been carried on by the ladies out of the depths of their hearts' desire to help the poor women and save the children. It was what was in the power of our hands to do.

We rejoice at the possibilities of improvement on a large scale, presented to us yesterday at this most interesting and valuable Conference.

Our Government and our medical men have bravely faced the humiliating facts of our present conditions of life for vast masses of our people, and some of the papers showed a decided feeling that the conditions could and would be overcome. Mention was also made of our increased death-rate where public-houses abounded.

When the people are set free from the unspeakable, unsupportable burdens of drink and disease they will provide themselves with the means of comfort, and will care for the upbringing and education of their families. These burdens must be removed from them by the Government and the medical men, with the help of Town and County and Parish Councils. The part of the people is self-control.

We look forward to a time when every child will be well born, well fed, well housed, and well trained, growing up happy and good, exercising his powers in a way honouring to his Creator and useful to his fellow-men.

By Councillor CLARICE M'NAB, Leith.

It is a matter of great regret that under the regulations framed by the Local Government Board in respect to grants payable to public health local authorities, for approved schemes under the new Act, no expenditure is allowed on the provision of milk and any other food. It is probably the case that no expenditure is allowed either on residential treatment, because the provision of food would require to be made.

Dr. Leslie Mackenzie yesterday emphasised the fact that the Act has been passed to give powers to health authorities to make arrangements for attending to the health of mothers and children. Over and over again at this Conference we have heard the words, "Prevention is better than cure." The provision of meals is one of the best forms of preventive work. One of the first essentials to health is a sufficient supply of good food.

I am prepared to admit that a number of causes contribute to infantile mortality. In my opinion the chief cause is not ignorance but poverty. Child welfare schemes are not required for the residents of our west ends of cities. The babies born there are cared

for until the period of adolescence is passed. From official statistics we find that nearly 20,000,000 of the inhabitants of this country are classed as "poor." The environment of the slum is responsible for the death and disablement of thousands of infants every year.

For the hungry mother medicine bottles and advice are of no use whatever. To be unable to provide her with a nourishing meal is to approach the whole subject without common sense. The health authorities can provide meals, I know, but I am afraid no action in this direction will be taken if the whole of the cost is to be borne by the rates. Many members of local governing bodies look upon the spending of money on the provision of food with strong disfavour.

This decision of the Local Government Board is all the more regrettable in view of the experience the Government gained in regard to the medical inspection of school children. It was in consequence of the inspection that educational authorities were compelled to recognise the wisdom of providing meals. School medical officer's reports show that the percentage of children suffering from malnutrition is very high, which justifies the opinion that the number of children under school age also suffering from malnutrition will be high. The medium of nourishment for the baby is the mother, and in providing dinners for the nursing or expectant mothers two lives are getting the benefit.

Bradford, which is recognised as one of the most progressive municipalities in matters pertaining to public health, established a cooking depot in connection with their schemes, and hundreds of dinners are provided daily to the mothers. I was informed by one of the medical officers that it was only after the institution of meals that many mothers were able to breast feed their babies for the first time, and to bear a living child for the first time.

Other very good reasons could be advanced for the provision of meals by the municipality. Nearly half of the population of our largest cities live in houses of one and two rooms. In houses such as these there are no proper facilities for cooking. Articles of food requiring slow, careful cooking cannot be made use of. Lack of domestic appliances makes the task of cooking burdensome, and it is not a matter of wonder that many women resort to the purchase of cooked foods, many of which are highly seasoned, and so help to create a craving for drink. Many women have no knowledge of cooking.

With the provision of meals by the municipality, economies in the home could be effected in food, coal, and labour. Meals should be given free in cases of necessity. If the mother is able to pay, the cost of the meal could be fixed according to the economic position of the family. The provision of food is undoubtedly an indispensable part of a child welfare scheme.

The continuance of the war is causing a great reduction in the choice of food. We have to face in the coming months the possibility of a serious scarcity of food. War conditions therefore make it all the more imperative that local health authorities should be compelled to make the best possible provision of food for mothers and children. Communal methods are best fitted to deal with the present situation.

I hope that in the preparation of child welfare schemes provision of meals will be included, and I further hope that in the near future the Local Government Board will give grants for such expenditure.

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(2) (*b*) THE KINDERGARTEN AND PLAYGROUND FOR YOUNG CHILDREN.

By Miss M. A. HANNAN WATSON, Laurel Bank School, Glasgow.

I WELCOME this Conference as the dawn of brighter days for those city children who have hitherto been passing through the dark ages that have lain between birth and school age. It has not been a case of the survival of the fittest, for the survivors, as a result of hardship, have often been rendered quite unfit for useful, healthy, and pleasurable life. The child is worthy of the very best conditions, and, as many parents are unable to provide these, the State, if it values its future existence, must do so.

The kindergarten provides for children between the ages of three and five. There is even a strong presumption that its methods are superior to those of the ordinary school for children up to the age of six. Until the best educational opinion has been brought to bear on this question, I think it would be a mistake to fix too definitely on the age of five as the moment of transition to the older school. While the crèche is generally prepared to receive babies and "toddlers" for the whole day, the kindergarten has adopted the usual school hours—9 to 4. This means that co-operation is expected between the parents and the teachers in

the care of the child. The mother washes and dresses the child and gives it breakfast; the kindergartner supplements this care. In the kindergarten the child learns simple lessons of housecraft, and is expected to put these into practice at home. The aims of a kindergarten are to provide the best possible conditions of health, to develop the various faculties of the child, and to train it to be a good citizen.

The Phœnix Park kindergarten was started in Cowcaddens because it was believed that Cowcaddens was the poorest and most densely populated ward of Glasgow, and therefore the place where children were living under the worst conditions. The very airiest and sunniest spot in the ward was chosen as the ideal site for the little school. Then the Corporation was approached. They bought the ground and handed it over to the Phœnix Park Kindergarten Association, asking in return a nominal rent of £1 a year. A pretty temporary building was erected, but one-half of the ground was arranged as a garden, so that the children might pass as much time as possible in the open air. The school has been in existence for four years. The staff is composed of a voluntary head, a salaried assistant, and other voluntary helpers. Thirty-three children are on the roll; there is always a long waiting list. A lady doctor, a volunteer, pays regular visits. The dinners, which have been arranged by the lady doctor and a small committee of experts, are provided by the "Cosy Corner Restaurant." The parents pay for these. The children have each summer been taken to the country for a summer holiday.

The Phœnix Park kindergarten has become the centre of a little colony. A crèche has just been started under the same auspices. Under another association, on whose committee are many members of ours, there have been founded "The Cosy Corner Restaurant," a dining-room for mothers, and a clinic.

I have said that we have 33 children on the roll of the kindergarten. In Cowcaddens alone there are 1228 children between the ages of three and five living in one- or two-apartment houses for whom similar advantages are desirable. Can they be secured? How can it be done? The expense per child is something between £7 and £8 per annum. I know some church halls which could, I think, be adapted. After the war we could count on our getting large numbers of Y.M.C.A. huts which could be made suitable. Open space for play is just as necessary as buildings, but in places as

crowded as Cowcaddens that can only be got by pulling down slums. Let them be pulled down. I am sure they cost more than they are worth. Into many a street of this city the sun never penetrates, and no child can do without the sun. As for mistresses, I calculate that one is required for every 10 or 12 children, as care of this kind to be of value must be individual. How are these teachers to be got? When munition-making is over, numbers of girls of our very best classes will be set free, and I expect they will still be eager for service. My belief is that a very large percentage of these girls have the instinct that makes work with young children natural and delightful. When looking for kindergarten teachers I would make my first appeal to the very best of our young womanhood. Their ideals are so high that we have found they will neglect no duty however humble in the effort to realise them, and I have also seen that children love quiet voices and gentle manners best.

One want in Glasgow is a training college for teachers of very young children. If we require them in large numbers we must make training easy, and London is too far. I think it is a mistake to demand a high preliminary examination as an entrance to such training. We shall need the help of large numbers, and many girls who have the gift for working with young children are not of the University type. There existed till lately in London a small college called Sesame House, where the studies essential to such students were taught. It was not expensive, the course was short, its aim was clear; it taught its students to be capable kindergartners and social workers. Let the students know and take an interest in the ideas of Pestalozzi, Froebel, and Montessori, but let them pay still more attention to the child they themselves are dealing with.

May I make one plea before I end? Do not eliminate voluntary work; it is often the most living of all.

By Mrs. LESLIE MACKENZIE, Edinburgh.

Mr. Chairman, I should just like to say that, as the paper will be printed, and as it really overlaps much of what has been said this morning, I shall not read it in the few minutes allowed, but speak for a moment on the need for helping overburdened mothers by taking the "toddlers" of the family out of her way for an hour

or two in the forenoon. I was asked specially to speak on playgrounds for the "toddlers," and the paper is wholly given to an experiment in that direction that was made in Edinburgh. But there is one remark I wish to make about crèches. I sympathise with the speakers who have called them necessary evils. I have seen crèches and crèches—(hear, hear)—and I have seen crèches in regard to which I am quite satisfied that the children would have been better playing in the gutter if the women in charge sat at the street door and watched that nothing happened to them. The playground I describe is not for children whose mothers have to go out to work. I agree entirely with the motto, "One woman, one job"—(hear, hear)—and if that job is bringing up a young family, then keep the woman in the home to bring up a family. (Hear, hear.) I know there is no official body that could have more influence in that direction than our own Parish Councils; and yet they give small pittances to widows and their children, and so really force the mother to go out and work to supplement the income. I think every widow that is left struggling with a young family should have enough from the rates to bring up her children decently, and keep herself at home to do it. The "toddlers" playground we established in Edinburgh was for that overburdened mother in one- or two-roomed houses with a baby, another perhaps eighteen months old, one three years old, perhaps one five years old, and some at school, the husband, and very often a lodger. We know the cases by the hundred and by the thousand. I am sorry to hear so many people at this Conference talking about the "ignorance" and the "neglect" of the parents. I have only the greatest admiration for the Scottish working-class mother and what she does on so little. (Applause.) Had it not been for the same Scottish and English working-class women and mothers where would our Army have been, and where should our munition workers have been? (Loud applause.) And in the new legislation for child welfare one is thankful there is not a trace of pauperising such women, but there are many possibilities of giving them great help in their brave struggles to bring up their children to healthy, happy manhood and womanhood. And the greatest help you can give to a mother such as I have described is for an hour or two in the forenoon to take out her two or three "toddlers" into a decent, comfortable bit of ground, with a shelter for rainy days, and let them play there in comfort and safety, and train them to use certain necessaries of life. We cannot always blame the woman if she has not been able to train them to do so herself.

The huge playground and the huge park is of no use for this purpose. If you have a large playground or park rail in a bit of it for the children alone, and put in a young woman there to teach the children to play with simple toys, sand heap, pail and spade, &c.

The CHAIRMAN—Ladies and gentlemen, I think I might ask the members of Parish Councils here to bear that remark of Mrs. Leslie Mackenzie's in mind. It would be one of the most helpful things to our widows with families and to our movement if they enabled the mothers in that position to feed and to bring up their children correctly. May I make one remark on the work of our City Child Welfare Committee? They are arranging to carry out an experiment at Glasgow Green, a centre of the city—to have a playground and a crèche there of the kind referred to by Mrs. Leslie Mackenzie. We hope it will be a success. We believe, those of us who know what other forms of the movement have been able to do, we hope it will be of the greatest assistance to the mothers who are shut into the slums, and the children who have no other place to play, and who cannot be trusted to go to the parks themselves.

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(3) THE COUNTRY AND CONVALESCENT HOMES.

By Miss M. RUTHERFURD, Warden, Queen Margaret Settlement, Glasgow.

To such an audience as is gathered here it is unnecessary for me to labour the need for children's convalescent homes for not only cases recovering from acute illness, but for many of our sickly and debilitated city children, who, if not caught and sent away in time, will rapidly degenerate into chronic invalids, and die after weary days of langour and general misery.

Nor yet need I emphasise the need for country hospital homes for children who require prolonged residence in fresh air and better general conditions than is possible in their own homes, where hospital treatment can be continued, the child carefully watched without the enervating conditions which so often seem to supervene after long residence in our town hospitals, but I do wish to put in a special plea for a home, or, rather, several small homes, for little children between one year and five who are not catered for to any appreciable extent in the existing children's homes. So often the deposed baby falls ill. Probably not long weaned, he is left to take the run of the house; his daily bath ceases with his weaning. This he misses, and is uncomfortable and miserable, probably cutting

teeth to add to his troubles, and his tired overburdened mother has no time or energy to attend to him. He sits on the floor day in day out with his legs crossed like a tailor till the bones are grooved. No wonder he becomes ill and rickety and his digestion goes all wrong. My ideal home is not at all elaborate. All that is wanted is cleanliness, fresh air, suitable food, suitable clothing, abundance of sleep, and a sensible nurse to supervise. Another class for whom we need a special home are the heart and rheumatic children, for whom there is no provision in the ordinary convalescent home. These children need such special individual care that none of the existing homes wish the responsibility of dealing with them.

As the representatives of the Invalid Children's Aid Association we at the Settlement have a great number of children referred to us from many sources. From the special schools, the infirmaries, the dispensaries, the Children's Hospital, the Public Health Department, not to mention district visitors, infant health visitors, bank collectors, school teachers, ministers, and others, more than we can cope with, and we are often at our wit's end to know what to do for them all, as each visitor thinks her case the most pressing, and forgets what a small field we have to work on, for I consider Glasgow is very badly off in its accommodation for invalid and convalescent children compared, say, with Liverpool, which more nearly resembles Glasgow than any of the other large cities. The homes divide themselves roughly into three groups.

(1) F.A.F. Homes for the ordinary school child whose parents cannot afford to send him away, and for whom a fortnight in the country will do much to keep him in ordinary good health, but who requires no special attention while at the home.

(2) The ordinary convalescent home, such as Dundonald, Ashgrove, Ravenscraig, and St. Leonard's Home, St. Andrews. All these are for children who are more or less able to do for themselves, and none of whom need active medical treatment or to be confined to bed. St. Leonard's Home takes no child under four years, and none with open sores. Ravenscraig is largely the preserve of the Children's Hospital. Dundonald takes six babies at a time between May and September; after that none under five years.

Prestwick and Strathblane Homes take cases for prolonged treatment, the time limited only by the decision of the visiting surgeon. The majority of the children are entirely confined to bed in splints or on extension, suffering from hip, spine, and other forms of external tuberculosis. A few cases of rickety babies are admitted at

Strathblane, and, as a rule, do very well. There all the children sleep out of doors except in the wildest weather, and only the nurses seem to feel the cold.

In both these long-term homes special schools are attached. The children have lessons daily, and enjoy them; it helps to pass the long day, and there, unlike ordinary schools, holidays are at a discount.

The ordinary stereotyped three weeks' change of air does fairly well in the cases of children recovering from acute illness, but is not sufficient for the weakly child with a bad family history of consumption, who needs months in fresh air instead of weeks. For some of these we have been able from time to time through the generous help of friends to board out with kindly, capable cottars' and farmers' wives with the best results. Most of the homes grant an extension on appeal being made to them for individual cases. Six and sometimes nine weeks may be obtained, but the pressure is so great it is difficult to get all we would like. St. Leonard's Home very often gives a second or even a third month on their own doctor's advice. Our rickety children do extraordinarily well there. Many children who leave us unable to walk return running like hares to their mothers' amazement, and sometimes dismay, finding them too active in a small house.

All the homes are financed by public subscription except St. Leonards, which is maintained by the school seniors, and a charge varying from 1s. to 2s. 6d. a week is made for each child. Prestwick and Strathblane assess the parents according to income, and quite a valuable amount is obtained in this way. At Strathblane beds have been endowed, and others are maintained from year to year by societies and schools. Ravenscraig is maintained by Trinity Congregational Church. Glasgow School Board and Eastpark Home have beds reserved at Prestwick for their special children, but none are free from pressing financial anxiety, especially at this moment. Nevertheless, I will end as I began with an urgent request for all the special homes I pled for at the beginning.

By Mrs. LESLIE MACKENZIE, Edinburgh.

Mr. Chairman, ladies and gentlemen, again I shall not read a paper at this late hour, and because the previous paper has gone over so much of the same ground. The point I wish to make about convalescent homes is to remember that a convalescent home is not a

sick children's hospital, neither is it a fever hospital. There should be a sufficiency of simple convalescent homes spread all over our hillsides and by our seasides, so that every debilitated child can get a chance of complete recovery, and that especially after infectious disease. We base the whole of this work really on the series of figures lucidly set out in the Child Welfare Exhibition. If you take the number of deaths from infectious diseases of children between the ages of one and five years for the last year for which we had complete figures it gives a total of 5893; on the other hand, deaths from the same causes in children of school age, five to fifteen, drop to 772. The lesson to be drawn from the facts is that these infections are very deadly diseases for young children and relatively harmless for older children, therefore make every effort to keep the child free from infection until it has reached school age and it has a fair chance of recovery. But be sure that the recovery is complete before the child is sent back to school or to work. Badly recovered infections are the greatest source of our "damage rate," and you get the damage rate also very strikingly laid out in the exhibition upstairs. It is to meet those badly recovered cases that we plead for country convalescent homes. These need not be great and elaborately built palaces, with highly trained nurses, but, as one lady said, decent, comfortable homes, with decent, comfortable, motherly women who will look after the children and see that they get plenty of fresh air, good food, and long sleep, and, for any sake, unlimited human loving kindness. (Applause.) The model I have just described is our Humbie Children's Village Home, situated in the estate of Humbie, about 18 miles from Edinburgh. There each cottage is built to accommodate twenty children, with a house mother in charge of it. We insist that the matron shall be a fully trained nurse. She is in charge of the whole village, and has a cottage for herself. The doctor of the nearest village is our village doctor, and there is an open-air school as part of the scheme. I was happy to hear some one say that school is not a bad thing in connection with convalescent children. The school is not a school in the ordinary sense of the word, but it gives the children a daily duty, a place of repair, its work is light and pleasant, and out of school hours it becomes a wonderful play-place. Then the food is simple and good, and the rule is early to bed and no hurry in the morning. One longs to see such homes dotted all over our pleasant country sides, where delicate and convalescent children may become thoroughly well and strong before returning to the duties of life. A

few weeks of such recuperation would, in most cases, prevent the tremendous damage rate, and to the State would be worth whatever money might be spent; for nothing is so expensive to the community as its own manufactured unfit.

By Mr. ROBERT F. BARCLAY, Hon. Secretary and Director, Royal Hospital for Sick Children, Glasgow.

MR. CHAIRMAN, ladies and gentlemen, after the exhaustive way this question has already been dealt with I am not going to read any paper. I am only going to make two remarks. The first is that any person who works in children's hospitals knows full well the incalculable benefits of convalescent homes. Any number of children come to the Sick Children's Hospital who only need good food and fresh country air. We owe a great debt of gratitude to the convalescent homes, and I hope their number will be increased. There are, however, two classes of children who cannot be dealt with in existing institutions. Existing homes will not take little children under two years of age, because of the difficulty of taking them to and from the home, of the special care and nursing necessary, and the consequent expense. Now, I commend very earnestly to ladies and gentlemen who are interested in little children the idea of starting and maintaining in the country just outside Glasgow small inexpensive homes, in each of which a few babies could be taken for a short time. The Children's Hospital will supply the babies, and not a few little lives will be saved. The other class is not provided for at all in the very necessary class of tubercular cases—I do not mean phthisis—and hip joint cases, whose cure depends not on being in the country for two or three weeks or months, but who require a year's treatment or more. We deal with many of them at our country branch, but frequently we cannot keep them long enough owing to the number of urgent surgical cases requiring admission. Country convalescent homes are therefore required, to which such cases can be sent and receive treatment for a year in it; may be two. I do not think charity can overtake this work. The number involved is very large, and the expense will be heavy. It must, I think, be dealt with by the local authority. I sincerely hope that something practical will be done to deal with these tuberculous children who can be cured if they get sufficient good food and fresh country air.

The CHAIRMAN—Excuse me adding to that last remark, Mr. Barclay, that everything was arranged by the Corporation of Glasgow for the building at Southfield, Mearns, of an institution to hold 350 children predisposed to consumption. It was with the greatest regret that we, the members of the Tuberculosis Committee, had to abandon that project meantime. We were to keep them there, educate them, and clear out of the system, if possible, the tuberculosis. That will go on immediately after the war. It would have been up and occupied by this time but for the war.

2nd Day—Afternoon Sitting, 2 o'clock.

Ex-Provost M'Dougall, Pollokshaws, occupied the chair.

V.—THE PROBLEM OF HOME VISITATION.

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(1) THE RELATION OF THE GENERAL PRACTITIONER TO WELFARE CENTRES AND THE PROBLEM OF HOME VISITATION, VOLUNTARY AGENCIES, AND DISTRICT NURSES. THE RELATIONSHIP BETWEEN INFANT VISITING AND OTHER ELEMENTS IN A SCHEME.

By A. K. CHALMERS, M.D., D.P.H., Medical Officer of Health, Glasgow.

MR. CHAIRMAN, ladies and gentlemen, I must begin by assuming that you have already in your mind a scheme which provides an infant consultation, a kindergarten, a créche, a playground, a country home, and a system of domestic or home visitation. Having that clearly in mind, I wish you to remember this. There are fully six million children of school age in this country, and fully one million of them are physically defective, so defective that they cannot take reasonable advantage of the ordinary methods of education provided. One may ask, is that a condition of the country that we can contemplate as continuing? ("No.") How do you propose to end it? How do you propose to add that million to the other six millions of healthy children who are to recruit the nation? It is little use saying stop drink, and that will do it;

provide new housing, and that will do it; subsidise feeding, and that will do it. Reform in these and in many other directions is required, and that is why I am wholly against limited resolutions on particular subjects. Reform must overtake not one field of social defect, but many. The point I wish to lead you to is this, that one-sixth of our child population does reach school age in a defective condition. Can you reduce the million to half a million, or a quarter of a million, or less? You have considered the question of the infant clinic, and you have considered a system of home visitation. But how do you propose to supply the medical relief of which these children stand in so much need? The nurse or the trained visitor will be valuable in many cases, but now and again a case will occur which requires continuous medical attention. How are you to obtain that? Is there any one who suggests that the system at present in vogue is adequate for our needs? Local authorities have the responsibility placed on them of preventing this million of children from suffering in the future. What medical service are you going to give them? The first line of medical service is the general practitioner, and the second is the hospital. Let us deal with the hospital first. Does any one with a knowledge of the condition of so many of our houses assert that under all conditions disease may be adequately treated at home, even with the best skilled medical attendance you can get? Are there not houses, too many of them, where it is a simple sham to pretend to treat disease adequately? (Applause.) That brings you at once to this point—supposing you agree that housing is not adequate to the home treatment of disease in far too many cases, are your hospitals adequate? Are there sufficient of them? Are the beds numerous enough? That is one part of the system of medical service which is now being called in question. Then with regard to home medical visitation, how are you to provide it? You have a panel system, which provides medical service for insured persons over sixteen years of age. Large numbers of the adult community are left out of that scheme, I understand. Are you going to meet the demands of these children who are being neglected at the moment by extending the panel system to include all ages and both sexes, or are you going to add to the staff of the medical officer of the district assistants who are to be condemned to blind alley occupations in order that they may attend only to children under five years of age, or are you to borrow as it were a page out of the Insurance Act, and constitute a local authority

medical panel? That is the question which I think local authorities will have to consider in the future. A phrase frequently in use, but not yet adequately defined, comes readily to one's mind, a State medical service, and it forms another alternative. But it is easier to find the answer by fixing attention solely on the requirements. Are the hospitals meeting the demand for adequate accommodation?

There is no use in saying, "Repair your housing and you do not require your hospitals." It will take a generation to remove the housing difficulty. But while you are discussing whether it is to be done in one way or another children are dying, children are being made physically unfit for being educated, and the machine gets blocked. What I put as the problem to this meeting is, what answer has medicine to the difficulty? Does it say that it should lie in the formation of a panel, either an insurance panel or a municipal panel, or one or other form of organisation. That is one section of it. I am aware that in other sections the question of feeding comes up. All that is involved, but for this particular purpose I ask, how are you going to provide home medical attendance for these children who, as I have told you, amount in number to more than one million?

By MICHAEL DEWAR, M.D., Fell. Obst. Soc., Edinburgh, Chairman, Local Panel Committee, Edinburgh; Member of C.M.R., Scotland.

Mr. Chairman, I shall cut my remarks short as much as possible. I am very pleased to hear Dr. Chalmers saying what he has said, because it simplifies very much what I would like to say. I am simply speaking as a general practitioner, and not as representing any board or committee or association that I may be connected with at the present time.

In the first place, however, I would like to say that the British Medical Association means to do everything in its power to favour and support the scheme of maternity and child welfare, presuming that it will be carried out on proper lines. As regards the general practitioners, I think the scheme will have their necessary and unstinted co-operation, provided that the Local Government Board in its legislation and regulations, and local authorities in their administration, go the right way about it. We as a body are not always enamoured of the little ways of the Board. It has some-

times the unhappy knack of leading us to believe that a thing is going to be done in a certain way, and in due time the very opposite is announced; also that the medical profession will be consulted before any definite action is taken, and sometimes the first intimation we get is that the thing is done and finished with. We have never, as far as I can remember, opposed the appointment of whole-time medical officers for administrative purposes, but we have opposed, and always will oppose, the carrying out of domiciliary treatment of the people by whole-time officials. Administrative boards will always find themselves up against a dead wall in such a case. There is no one so competent or so well qualified to undertake the work of prevention and treatment on wide and generous lines as the general practitioner, who, owing to the nature of his work, is always adding to his knowledge and experience. On the other hand, the whole-time official, being an agent and servant of an administrative body, cannot by any means come into the necessarily intimate and proper relations with the persons whom he is supposed to treat, and, as time goes on, persons become more and more mere cases, and his power and ability to carry out proper treatment become more and more narrow and stunted in their growth in diagnosis, prognosis, and general therapeutics.

We do not know at the present time the exact lines on which the Local Government Board and local authorities will act in this matter, though we have the assurance of the English Board that nothing will be definitely done before consulting the British Medical Association, and the further assurance on the 26th January last that no scheme whereby local authorities would be encouraged to undertake domiciliary treatment of expectant and nursing mothers and young children is in contemplation. Yet we in Edinburgh have reason to believe and fear that a scheme is being prepared whereby the services of the profession are to be exploited on a gratuitous system. The medical officer of health a fortnight ago submitted a scheme of maternity and child welfare to the Town Council, which is, so far as was explained, a voluntary and unpaid scheme of medical treatment by the medical profession. The estimated cost of the proposal is £4500, of which the sum of £2370 goes to provide the salaries of an assistant medical officer of health, nurses, and clerkesses, and £2130 for the cost of dispensaries, health centres, day nurseries, and other items.

The convener of the Public Health Committee then went on

to explain "that the proposal would involve the institutions in extra work, and the committee would have to recognise that extra work by a grant of money. But in many cases the extra work would fall on the senior consulting officers and surgeons in the city, and that work would be done by them without any recognition at all. They were only proposing to meet the actual out-of-pocket expenses of the various institutions for medicine, machinery, and the use of the premises. They have not engaged a large salaried staff. In fact, they were getting the voluntary co-operation of the medical men and medical women, who were interested in the working out of the scheme. At present they could not expect all their scheme to come into full working order. Certain parts of it would require time, and could not be dealt with until after the war, but a large part of it could be put immediately into operation."

Now, this quotation gives a very good and plain indication of what is in the mind of at least one local authority, *i.e.*, to work the scheme with the voluntary and unpaid co-operation of the medical profession.

This is hardly a fair proposition for the medical profession. We are not any more than any other body of men a philanthropic agency. The Local Government Board and local authorities are, as usual, perfectly willing to ask for gratuitous medical services in a large national scheme. A scheme for the preservation of child life is the business of the State, and medical services required for its administration should be paid for.

Since writing these remarks I have had the privilege of reading a very interesting pamphlet by Mr. Whyte, of Hamilton, in which he ably criticises the many defects of this Notification of Births (Extension) Act, 1915, and the consequent regulations of the Local Government Board with respect to maternity and child welfare, and the want of co-ordination and similarity of the various schemes, or no schemes at all, which will be organised by local authorities, with the most of which I heartily agree. It is a most incomplete scheme all through, and is destined for complete failure on account of the way in which it is to be worked. In his paper he describes, in a very vivid and convincing manner, the difficulties which will arise in many rural cases, and the hardships to which nursing mothers and their infants will be subjected. The whole root and branch of the difficulties is in a word the expense. What is the use of the Local Government Board introducing legislation for a

great national scheme, and expecting it to be carried out in a great measure by voluntary agencies and on such cheeseparing principles? The country at the present time is spending over £5,000,000 a day for the purpose of destroying as much life as possible in order to secure victory. Why should the Government have any hesitation in granting a sufficient sum to save life, and promote the welfare of mothers and infants, and thus secure another kind of victory?

We all know now that this country is an exceedingly rich country, and I am sure that if the Government would take the bull by the horns, and say that we must carry out this scheme in a proper way, and provide the necessary funds for its administration, the country would rise to the occasion as one man. This partial and niggardly legislation will doom the whole scheme to absolute failure.

It is essential, and every one admits it, that everything should be done to save as much infant life as possible, but it is not honest, fair, or equitable to exploit the medical profession to this extent. I am sure that the Local Government Board or local authorities would not ask or expect any other body of men, professional or non-professional, to give their services gratuitously but the medical profession. If this exploitation is to go on, and advantage is taken of doctors in other schemes of proposed legislation, the whole living of practically three-fourths of the profession will be swept away, the doctors will become bankrupt, the pursuit of medical science will become so undesirable to entrants that the profession will be blasted, and it will be difficult for authorities to secure even the requisite number of whole-time officials to carry on their work.

I would therefore urge the Local Government Board to think well and walk warily in legislating for this scheme, that it should take into its deep consideration the advisability and necessity for delegating the whole medical treatment of prematernity, ante and postnatal conditions to the general practitioners, and make provision for their proper remuneration for work done.

By Dr. DREVER, Secretary, Glasgow Burgh Local Medical Committee.

Mr. Chairman, ladies and gentlemen, I do not propose to take up much of your time. I wish merely to raise one question, and emphasise what has already been said, namely, the terribly inade-

quate and makeshift nature of all the present arrangements for attendance on and treatment of the poor of all classes, whether expectant mothers and children or not. Surely the time is ripe now for something like a unification of all the bodies that are nibbling at the problem. We have the Local Government Board, the local authority, the Education Department, the School Board, the Insurance Commissioners, the Insurance Committees, and a thousand and one voluntary agencies besides, all striving to do their little bit, occasionally pulling in opposite directions, occasionally overlapping, and all of them, I am afraid, only touching the fringe of the whole question. Long ago the State admitted its responsibility for the education of the citizens for the training of the mind, and made education, the training of the mind, compulsory, and after a long interval accepted the natural corollary that that education should be free. How long is it going to be before the State recognises that it has an equal, if not a greater, responsibility to accept in the training and preserving of the bodily health of the community? It has accepted responsibility already in respect of workers up to a certain wage limit—medical attendance and treatment being provided for them. It cannot much longer refuse to admit the corollary to that, and provide the means of health for every member of the community.

By THOMAS GOODALL NASMYTH, M.D., D.Sc., F.R.C.S.E., F.R.C.P.E.,
Representative of Queen Victoria Jubilee Institute for Nurses.

Any few remarks that have to be made, it appears to me, should deal with such agencies as are comprehended by institutions with which I am connected or represent here, such as the Queen Victoria Jubilee Institute for Nurses. The problems to be met are numerous and difficult, but in large cities which have maternity and sick children hospitals the difficulties will be very much easier met by utilising these as the main basis of the complete organisation. In smaller towns and in country districts, where such hospitals do not exist, I apprehend very great difficulty in carrying out any complete or satisfactory scheme. In such places voluntary agencies and Queen's nurses will have a great deal of work to do with any schemes that are contemplated. At the present time of war many of such agencies and nurses are directing their energies to war work, work in aid of wounded and prisoners at home and abroad, and until some time

after the war they cannot be expected to give much help. As was well pointed out by Dr. Wilson, M.O.H. for Lanarkshire, the infantile death-rate is very low in country agricultural districts, and these will not require much attention, but excluding these areas there are many small towns and villages with excessively high infantile death-rates, and it is in such places it appears to be a very difficult problem to carry out an effective scheme or schemes. From what I heard at the Conference there did not appear to be much belief in the efficacy of instruction at schools of girls as to the rearing of infants and children, but personally I hope that in any scheme for the reorganisation of education in Scotland the possibility of the training of girls in sewing, cooking, and elementary principles of hygiene will not be ignored, and these all directly bear on child life.

By Mrs. D. R. CUNNINGHAM, Glasgow Infant Health Visitors' Association.

During the last two days we have had the privilege of listening to most valuable papers given by experts on the subjects on which they have dealt.

I am not an expert, but I have been asked to represent to-day a very important body of women workers in Glasgow, the Voluntary Infant Health Visitors, associated with the Corporation and the medical officer of health. There are, roughly speaking, 400 visitors, who last year visited over 5000 babies. These babies are visited from the date of birth until they attain the age of twelve months. We have no special training for the work of visitation. We leave to the nurses (appointed by the Corporation) the expert work, but the higher the intelligence of the voluntary visitor the better does she understand the value of training and the more unlikely is she to attempt the work which properly belongs to the trained nurse. Florence Nightingale has said that the necessary stock-in-trade of any one who wants to be a health visitor is some knowledge and much sympathy. Undoubtedly this house-to-house visitation by one sympathetic woman to another who may need kindly assistance and advice is the key to a solution of many social difficulties.

Conditions of life make it extremely difficult for mothers in poor districts to give that attention and care to their children which in other circumstances they would do. Any advice and help is eagerly welcomed by the mothers for the sake of their children.

Many infantile ailments are directly consequent upon errors of diet. This arises largely through want of knowledge on the part of parents and lack of an intelligent personal care of the infant. It is interesting to note that in the scheme drawn up by Dr. Chalmers, our medical officer of health, he states that in connection with a children's hospital there ought to be a laboratory fully equipped for experiments dealing with food and digestion, and prepared to construct synthetically the form of food adapted to physiological needs, or so to influence by treatment the health of the mother when the child is still being nursed.

The mothers, in spite of an environment, which in most cases is not likely to stimulate intelligence or high ideals, seldom lack real love for their babies. To give them a greater sense of their responsibilities and of the enormous power which they hold affecting the future of their children is part of our work.

The source of nearly all disease is now traced to the dangers of infancy, antenatal conditions, and parental irresponsibility. Thousands of babies born healthy develop physical ailments, most of them preventable by care and foresight, which, when the children reach school age, render them unfit to profit by the education which we demand they shall have.

There is much room for improvement in the surroundings of most of the mothers we visit. We ought to make the conditions of life for them more bearable, yes, even comfortable and happy. A very important duty of the health visitor is to take notice of the conditions of the home she visits and of the health of the other members of the household. She ought to try to gain the friendship and confidence of the mother, otherwise her visits will be in vain. She must be a link between the household and the beneficent institutions which already exist for the amelioration of suffering and the prevention of disease. In the past this has not been easy. One has been so often confronted with the fact that there is a long "waiting list." In the near future, when the new schemes are carried out, such a condition of things cannot exist, and the sooner the better. There is no time to lose. In this morning's *Herald* we see that the Scottish birth-rate for 1916 was the lowest on record—22·8 per 1000—but we are not without encouragement. The infantile mortality rate was also the lowest on record—97 per 1000—the first time that this rate has fallen below 100. Let us take fresh courage. The nation has at last awakened to the needs of her mothers. Let us all work together, not for our own time or place, but for the future. We

are grateful for the new Acts, which will do so much to assist us in the important work in which we are all engaged, but I should fail lamentably in my duty to the body of women workers whom to-day I represent if I did not say that there is still a shadow which looms over us, which hinders and discourages us in every aspect of our work, and which, I venture to say, will clog the wheels of any scheme, and that is the shadow of drink. Can nothing be done to remove this menace from among us? What is the use of spending so much money on new hospitals, &c., if we persist in supplying to our people that which causes so much suffering among the children whom we are fighting to preserve. There are difficulties in the way, I suppose. Some of us are too simple-minded to see them. But whatever they may be, let us find a way out. When we do, how many of the children of our race will have a chance such as they certainly have not under present conditions of becoming what we wish them to be—healthy, happy, and good citizens.

By Mr. WILLIAM TEMPLETON, Chairman of Health Committee, Middle Ward of Lanark.

Some years ago the Notification of Births Act was placed upon the statute book. The Act itself was excellent, but it carried with it the imperfection that it was not compulsory. The Middle Ward of the county of Lanark took advantage of a measure carefully aiming at saving the lives of infants.

It is now six years since the Middle Ward appointed its first health visitor. We have to thank our medical officer, Dr. J. T. Wilson, for his foresight and keen interest in infant welfare work, and in this good cause he has had the greatest assistance and co-operation of Mr. W. E. Whyte, clerk to the District Committee of the Middle Ward of the county of Lanark. Dr. Wilson realised the great need of the care of the mother and child, and largely through his efforts and those of Miss M'Neil, Queen's Nurse, his first health visitor, the staff is now increased to six Queen's Nurses, full-time health visitors, all bolding the C.M.B. certificate.

Each nurse resides in her own area, and her duties are many and varied.

It is desirable to get in touch with midwives' cases about the third day after a birth, and to advise the mother regarding her own and the infant's health and feeding.

Doctor's cases are generally visited about the tenth day. As

a rule the nurses find that their visits are most beneficial after the doctor's visits cease, especially to young mothers who are eager for advice.

Special care and frequent re-visiting is given to delicate babies and mothers, whilst assistance is given to necessitous cases, and adopted babies are also visited and looked after.

The nurses meet weekly in the district offices with Dr. Wilson and his two assistant medical officers, Dr. Miller and Dr. Dick, and get advice regarding their work.

Towards the end of 1915, Parliament, by the passing of two far-reaching Acts, has put into our hands power to make such arrangements as we see fit, to meet every medical necessity of the expectant mother, the nursing mother, and the child up to the official school age, which in Scotland is five years. Those are the Midwives Acts for Scotland and the Notification of Births Extension Act. It is gratifying to know that our health visitors have been appointed to inspect the midwives in their own areas. They have already started classes for the handy women, who have been certified as *bona fide* midwives under the Act, instructing them in the rules and duties set down by the Central Midwives' Board.

It is now over one year since the first infant welfare centre was started in Bellshill under Dr. Dick and Miss M'Neil, senior health visitor, and who was first Queen's Nurse to become a health visitor. The results are very gratifying. Four nurses attend. This is just the beginning of what we intend having in each area—an infant welfare centre. Each nurse feels the necessity of such an institution, as it is only by re-visiting and bringing the mothers and babies to the centre that real life-saving can be accomplished.

When we realise that in 1914 in Scotland alone we lost 11,000 babies under one year, we must put forward every effort in the saving of infant life. This would be *the greatest* war economy. As a brilliant lecturer said, "Save the pounds, shillings, and pence if you *can*, but save the babies you *must*." If the infant death-rate for the United Kingdom were as low as it is in New Zealand, the number of babies thus saved within four years would equal the quarter of a million lives which have been or may be lost in the war. As Ruskin says, "It may be discovered that the true veins of wealth are purple, and that they are not in rock but in flesh, perhaps even that the final outcome and consummation of all wealth is in the producing of as many as possible, full-breathed, bright-eyed, and happy-hearted human creatures."

I daresay that when the health visitors began this work they found the mothers perhaps somewhat suspicious of any interference, but I know that that has all passed away. In my own district of Dalserf Nurse Ross is welcomed everywhere, and her visits looked forward to. The mothers show their appreciation of those visits by having their homes, their babies, and themselves kept according to her instructions. Thus we have bright, well and properly-fed babies, also cheerful, clean houses.

Babies under One Year.—The registrar's return for 1916 in the parish of Dalserf show 44 of an increased birth-rate over 1915, whilst deaths of children under one year have decreased by 9.

The baby comes into the world all right, with strong socialistic tendencies. He blows his own trumpet. He makes a place for himself and gets it too, and, with proper care and attention, should thrive as well as the young of the lower animals. In almost every paper, even ladies' journals, may be seen advertisements about baby foods and calf meal. When I was a baby those were not required. In both cases mother's milk was sufficient until stronger food could be given. Even the proverbial dose of castor oil, which used to be given to a baby on the second or third day after birth, is not necessary.

The milk of the cow for the first three days is weak and so full of laxative ingredients that it is unsaleable, but well suited to the calf. I expect something the same occurs with baby and mother, and, if at all possible, mother's milk should be a baby's only food. If there were fewer chocolates and fancy cakes eaten there would be plenty of milk for both, even the margarine could be dispensed with. Strange is it not that man, the noblest work of God, and the cow, the great producer of human food, should be such victims to tuberculosis. Can the artificial feeding have anything to do with it?

Hives, as mothers call it, is just indigestion caused by too much and improper feeding. I know of a case just now where a healthy baby is seriously ill and not likely to live. The mother had been using biscuits to make food for it before it was two months old.

Exposure of the Baby.—I had occasion to travel to Glasgow a few weeks ago, in the morning, partly by train and partly by tram-car, on one of the coldest days of the winter. I was shocked to see on the platform of the railway station five mothers with very young babies the face and neck of one of them much exposed. Then there was a continual coming and going on the car of mothers with

babies. Even on the latest trains on Saturday nights many mothers with babies are to be seen coming from picture houses. Seeing so many babies die from throat and chest diseases, those practices should surely be discontinued.

Skelping the baby to keep it quiet should be deprecated. It has the opposite effect to begin with. I am told that in darkest Africa the heathen do not so punish their babies. I have made a careful study of animals in that respect, and, with the exception of cats and dogs, and then only in playfulness, I have never seen a mother attempt to punish her offspring. As an experiment I never punished mine, nor allowed another to do it. They have turned out well. Solomon was a wise man, but was far from being perfect, and I think he made a mistake when he said "Whoso spareth the rod spoileth the child."

By Miss J. P. WATT, Superintendent, District Nursing Association, Motherwell.

I HAVE to tell of the combined nursing and preventive work as carried out—not unsuccessfully—by the Queen's Nurses in Motherwell under a co-operative arrangement between the Town Council and the local District Nursing Association.

The population is 42,000, and, to cope with the work, the burgh is divided into seven districts, in each of which one nurse does the whole work, nursing, health visiting, tuberculosis visiting, and general welfare supervision; she also assists at the central infant welfare centre. The superintendent, in addition to the general supervision of the whole, has the particular supervision of ailing infants, and of infants and mothers requiring nourishment and clothing, the inspection of midwives, compilation of records and reports, and lectures and practical tuition to mothers and midwives.

The nursing work is carried out under the direction of the local practitioners, the preventive work under the medical officer of health; and as showing how interdependent are the two branches, the following come directly under the joint direction of both:—

	In 1916
1. Supervision and nursing care of Ophth. Neon, -	7 cases received 320 visits.
2. Supervision and nursing abnormal midwifery cases and normal cases in extreme poverty, -	45 ,, ,, 752 ,,
3. Supervision and nursing ailing infants and mothers attending Centre or met with in home visitation, - - - - -	over 200 ,, ,, many hundreds of visits.

4. 75 Gynæcological cases were under care, and these embraced a fair proportion of illnesses of an antenatal origin.

Under the health visiting work purely, each infant is supervised for the whole first year, the periodicity of the visits depending on the general home conditions, and the progress and development of the individual child—normally, first visit on tenth day; second, one month later; and thereafter every six weeks, or an average of nine visits per year. A monthly, weekly, daily, or even twice daily visit is paid, and nursing care given whenever necessary; and both mother and child receive nourishment, clothing, and loan of nursing appliances from the funds and equipment of the Nursing Association when real need is disclosed.

The mother is encouraged to come to the centre, where the M.O.H. is in consultation; if she does not come, the home visitation is continued; if she comes for a time and then discontinues, the home visitation is resumed; and in this way the whole infant life of the burgh is under supervision. One combined record is kept, the centre attendances being marked in red ink, the home visits in black. Other than the home nursing care referred to above, there are no facilities for treatment; but it is hoped to have, in conjunction with the School Board, a properly equipped consultation and treatment centre (ear, nose, and throat, dental, minor ailment, and antenatal clinics), while an infants' and maternity hospital is likewise an ambition.

Hitherto only infants have been supervised, but now there is being undertaken the home visitation of the pre-school child and the inspection of midwives; and through the medium of these two activities it is hoped to get to the home supervision of the expectant mother. No effort is spared to win the co-operation of the midwives in this preventive work, and their influence in the antenatal aspect of it cannot be over-estimated.

As to finance, until this year £100 per annum was paid by the Town Council to the Nursing Association; now £300 is being given, and other than this, the main revenue of the Association is derived from a voluntary weekly levy of ½d., subscribed by all the working men, who thereby, in fact, maintain what is for their service. And from experience it is here stated with absolute conviction that if real disinterested service is given to the people, they will give back a tangible response in most generous measure.

Some local authorities hesitate to adopt this combined method because under it they have not absolute control of the health visiting staff. But that is no real disadvantage so long as the work is

faithfully done; and in any case always their M.O.H. has full control, and the matter of adequately reporting to him is solely one of arrangement.

The following summary demonstrates the gradual development of the work; each nurse added to the staff meant a lessened radius for the others, and always the one woman does the whole combined work in her own area. It is a method applicable alike to the most sparse and most populated districts, infinitely preferable to the method of appointing whole-time health visitors, and would form an excellent basis for a State nursing service:—

Year ending 31st Dec.	Numbers.		Visits made.				Operations attended.	Classes for Home Nursing.	Dressing at Nurses' Home.	S. & S.F.A. (Cases Supervised).	Infant Welfare Centre—Attendance of Infants.
	Nurses Employed.	Patients Nursed.	Nursing.	Public Health.		Total.					
				Mother & Child Welfare.	Tuberculosis.						
From 23rd Oct., 1911	3	159	2,283	—	—	2,283	7	4	—	—	—
1912	4	923	18,638	1507	58	20,203	85	10	—	—	—
1913	4-5-6	1023	20,438	1692	65	22,195	130	19	—	—	—
1914	4-5-6	871	18,082	1597	44	19,723	107	12	—	—	—
1915	6-7	938	20,418	5369	826	26,613	76	57	655	31	2466
1916	7-8	980	22,518	8994	1511	31,023	76	40	1696	113	2594

It has here been rightly emphasised that the basic element of any lasting success in this preventive work lies in the efficacy of the home visitation, which in turn depends on the measure of the voluntary response evoked from the mothers, and how best to secure that response seems the immediate problem confronting every local authority. We consider that the nurse already entering the home—the district nurse—is the ideal health visitor, for these reasons—

1. The work is centralised, and overlapping precluded, with consequent economy of both time and money.

2. She knows the mothers, and that knowledge begets sympathy.

3. The personal service rendered as nurse creates a measure of gratitude, and out of that gratitude will come a readier response to the same woman's efforts as health visitor, and if big permanent results are to be achieved that voluntary response is essential.

4. The privacy of the mother's home is not unduly encroached on.

5. Confusion of advice is obviated.

6. If Queen's Nurses are employed, the system of periodic inspection to which they are subject maintains a standard of efficiency.

If it is argued that because specialisation in medicine has been found best, the same must therefore apply in nursing, the answer is that where the nurse pays twenty visits to the home, the doctor only pays one, and its privacy is not therefore impaired. And it is precisely this problem of the duplication of visiting agencies which many authorities are up against. The record in London is, I understand, seventeen visitors to the one home, and in many large towns easily there may be the following duplication:—

1-2. One voluntary and one staff health visitor,

3. One tuberculosis visitor,

4. One school nurse,

5. One church or mission visitor, and

6. One district nurse who *does* what all the others have talked about.

Granted, if the nurse is not a keen woman, the whole argument for unification collapses; but the combination of curative, palliative, and preventive work is precisely the factor which will attract and hold the good woman, and with adequate remuneration and fair hours of duty, a choice of good women is to be had.

This in conclusion—

Much was said yesterday of compelling the mother to do this and to do that, but before applying any compulsitor give her a chance to do what is right. Give her the minimum of housing accommodation necessary to ensure the common decencies of life; give her the essential facilities for cleansing, hot and cold water in every home; make all industries observe the smoke nuisance bye-laws, so that her cleaning will not be futile—that is, if she is to adequately ventilate her home.

When compulsion is adopted see that its application is equitable—on the rich as well as the poor mother; and further, if the woman is to be compelled to notify her pregnancy, compel, too, the man, her husband, to see to it that she has not to do so too frequently. Less I could not say in barest justice to that large mass of women and mothers here inarticulate.

After seven years' continuous and intimate association, I affirm that the working mother is not wholly to be blamed—that she is more sinned against than sinner. Consider her lack of training,

the loss of instinct in mothercraft, the limitations which the modern super-value of money imposes, the monotony of her surroundings, her meagre mental resources, the burden of continual child-bearing. Add to these the social and economic conditions under which she admittedly labours, and I ask—

"Who, other than a woman of her own class, may judge her?"

At this stage Mr. Edwin Scrymgeour, Dundee, moved that the Conference consider the question of passing resolutions in regard to total prohibition and other subjects, but, on a vote being taken, the motion was defeated by a large majority.

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(2) VOLUNTARY AND STAFF VISITORS: THEIR TRAINING AND QUALIFICATIONS.

By Dr. BARBARA SUTHERLAND, Public Health Department, Glasgow.

In any scheme for promoting child welfare an important place must be given to home visiting. In many instances it seems as if too much emphasis is being laid on the gathering in of the mothers and children to welfare centres, and too little importance attached to the individual guidance of the mother and care for the child in the home. It is often argued that, so long as housing conditions continue to be as deplorable as they are at present in many of our town areas, little can be done for the mother's instruction in the home while, it is said, there is a chance of helping her, by removing her, even for a short time weekly, from her surroundings and guiding her to some centre. There, in addition to medical advice, she may receive instruction in general hygiene, child management, and other kindred subjects.

Undoubtedly such a centre is a great attraction, but, it seems to me, that, unless it has as one of its chief interests a system of regular and efficient home visiting, it may fail utterly to do any real good. On the other hand, if the work of the welfare centre and home visiting are suitably combined the good may be incalculable.

Nowadays, it is widely realised that in any scheme of home visiting both the trained and the untrained visitor must play their parts. No scheme could be ideal which did not recognise the importance of both the official health visitor and the voluntary visitor.

There is, I know, some difference of opinion as to the best qualifications for a health visitor. In Glasgow (and, I believe, in most of the larger centres in Scotland) the duties of the health visitor are quite distinct from, although often closely related to, those of the

tuberculosis nurse and sanitary inspector, as well as those of the school nurse and the district nurse. Therefore, in referring to health visitor, I refer to the infant or child welfare visitor only.

Until now the activities of the health visitor have been almost entirely limited—officially at least—to the period from birth until the end of the first year, but henceforth they must extend from the pre-natal period (in conjunction with the practising midwives, of course) until school age.

In the first place, the certificate of the Central Midwives' Board must, I think, be regarded as an indispensable qualification, for much of the health visitor's work deals directly with matter relating to pregnancy and the puerperal period.

Secondly, some form of hospital training is very necessary, if not indeed indispensable, for the health visitor is constantly coming into touch with cases which require the care and advice, which hospital experience most suitably provides. Often she has to help the mother with minor surgical dressings or to advise her in matters relating to medical cases as distinct from surgical. I do not advocate that all health visitors should possess the certificate of one of the large general hospitals, for I believe that the system of training in vogue in the large medical and surgical hospitals is not the most suitable hospital training for a health visitor. The ideal training would seem to be that of a sick children's hospital. Failing that, the most suitable is, in my opinion, that of an infectious diseases hospital, where the majority of the patients usually are children. There the nurse obtains great insight into the general illnesses of childhood, for during the course of the various infectious diseases (notably scarlet fever, diphtheria, whooping-cough, and measles) many complications arise which demand special and careful nursing. Thus the fever hospital affords great opportunity for acquiring knowledge which is essential for the supervision of the health of young children. In some of the infectious diseases hospitals the nurse may also gain experience in the nursing of cases of puerperal or childbed fever, and this is, naturally, of considerable help later.

In addition to the two qualifications already mentioned, viz., midwifery and hospital training, it is desirable that the health visitor should possess a certificate in sanitary science, in order that she may be acquainted with public health work generally.

The duties of a health visitor are so varied and often so ill-defined that it seems as if her training should include much more than the three chief forms above mentioned.

The health visitor is essentially a social worker, and as such is often expected to guide and advise mothers in subjects technically outwith her province. For this reason chiefly, I think, many nurses who are well trained in midwifery, general hospital nursing, and sanitation often fail completely to become efficient health visitors, because they fail to recognise that in their work, perhaps more than in any other, the greatest asset seems to be a sympathetic understanding of the mother and a willingness to aid her in whatsoever way seems best. The capable health visitor is regarded by many mothers as the general friend of the family, who is willing to help and advise in times of difficulty and trouble.

So far I have referred only to the official visitor, giving her first place, because I believe her to be of vital importance.

The voluntary visitor, usually an untrained worker, is likewise very important. In some cases she may do more good than the official worker, for occasionally she may be allowed to obtain a more intimate knowledge of the home conditions of the mothers and children than the official. It is apparent that some mothers more willingly confide in and communicate details to a voluntary worker than to a staff visitor.

Theoretically the voluntary worker should have some slight training in child welfare work generally, but in practice the knowledge which comes from sympathy, kindness, and common sense is found to be an admirable, and often very adequate, qualification. In the larger towns at least it is not necessary for the voluntary worker to give advice on such subjects as infant feeding—beyond, of course, the general advice of impressing on all the importance of breast feeding—for consultation centres are commonly available where the mothers may obtain advice from a medical officer or an official health visitor.

If the voluntary visitor persuades the mother to attend such a centre, and then, by regular visiting, helps her to follow any special advice given there, she will be of great service to the mother and the child.

Of course, it is highly desirable that there should be available for voluntary visitors some simple course of instruction on matters relating to child welfare, but I wish to point out that, in the absence of such, much good work has been accomplished and still may be accomplished. There is, I believe, in some districts an idea that only married women should do voluntary child welfare visiting. This barrier seems to be very needless, for the most efficient visitor is

often the unmarried, whose sympathies readily extend to mothers and children.

For the complete success of any scheme it is essential that there should be free and constant communication between the official and the voluntary visitors, so that cases requiring the advice of the trained worker may be at once referred by the voluntary to the staff visitor. Friendly co-operation and interchange of information regarding cases is bound to help greatly in the general work, and should act as a stimulus to both visitors.

In Glasgow there are at present twelve official health visitors working under two assistant medical officers of health (both women). There is also a voluntary association—the G.I.H.V.A.—with about 400 members, and I think I may safely say that on the whole we all work in harmony. All cases which are subsequently visited by a voluntary visitor are, in the first instance, visited by a staff visitor.

In conclusion, if child welfare work is to be advanced according to its need, it is apparent that there must be a considerable increase in the number of official and voluntary visitors, so that more homes may be visited, and many visited much more frequently than is at present possible.

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(3) THE PROBLEM AS AFFECTED BY HOME CONDITIONS: THE CHILD IN A TUBERCULOUS FAMILY.

By Dr. SCURFIELD, Medical Officer of Health, Sheffield.

Mr. Chairman, ladies and gentlemen, I only want to take up your time with the consideration of one of the problems one is met with in the course of home visitation. We have in Sheffield about twenty-two visitors. We call them "women sanitary inspectors." They have the qualifications of nurses, midwives, and sanitary inspectors. And I agree with the previous speakers who have pointed out that it is advisable to have, as far as possible, one woman visiting a house for the various purposes. One of the problems that we are brought up against at once is the question of child poverty, where you meet with a very good woman who is trying to bring up a large family on a quite insufficient income, and that is the point I want to bring before the members of the Conference, chiefly with a view to getting public opinion educated in the matter. They have in America what are known as "Mothers' pensions" in twenty-seven

out of forty-eight States. It is stated that they ought to be more correctly called "Child Pensions." As to the object of the pension it is a subsidy from the State, without any idea of pauperism or charity, to aid the mother in bringing up her child at home adequately so as to avoid that child being sent to an institution. The problem that I want to draw particular attention to is the problem as it affects the children of widows and the children of large families. It is utterly useless talking about the decline in the birth-rate and deploring it unless some proper provision is made for the children that come. I came across the other day a family of father and mother and eight children under the wage-earning age, and the wages coming into the home were forty shillings per week. Well, it is perfectly obvious that an income of forty shillings per week at war prices, or at any prices, is quite impossible to adequately maintain a family of father and mother and eight children—ten persons. I think we come to this, that you may fix a living minimum wage that will be suitable for a single man or a single woman doing the same work—because I hold that for the same work the woman ought to be as well paid as the man—(applause)—and you may consider that that living wage would be suitable for a man and his wife and perhaps three children. They have fixed the limit in France of three children. After three children there is in France a subsidy for each child over three, for what they call the big families. Their idea of a big family in France is rather different from ours. I think we have to come down to this, that unless you are prepared to fix a living wage of something more like sixty shillings than thirty shillings you have got to say what that living wage is going to do. It may be able to feed and maintain a man and his wife and three children under the wage-earning age, but it cannot deal with six children under the wage-earning age. Many of us deplore the declining birth-rate, but what is more important is that we should provide adequate maintenance for the children who come. I want you all seriously to consider this question, viz., whether we could not have some system of State subsidy administered by the health authority, and not by the poor law authority, by which the parents of large families who happen to have simultaneously more than three or four children under the wage-earning age at the same time should be entitled to have a definite subsidy for each child over that limit that is fixed, whether three or four, which will be enough to adequately maintain that child. It is no use talking about the housing question if people have no money to pay for the houses. Take the case of

a man or a woman on a labourer's wage with a family of six, it is perfectly obvious that these children cannot be fed, clothed, or housed properly. They can only be housed with overcrowding and provided with an insufficient dietary and insufficient clothes. The State seems to me to be in a dilemma in the matter. It is either one thing or the other. You cannot enforce Malthusian methods even if you favour them. I do not favour them myself, because I think most of them are dangerous. If you cannot limit the families you must see that the children of the large families that come are adequately looked after. I think this is a very important point that all health visitors come across very early in their career of health visitation, and I think it is a problem that ought to be tackled boldly and quite independently of prejudices as regards the past history of the poor law or anything else. I think we want to approach this matter as a modern twentieth-century problem. We talk about the decline in the birth-rate, and we are not facing the problem of the large family or the problem of the widow left with children properly until we have some system of subsidies from the State which do not involve charity and which do not involve pauperism. (Applause.)

By Councillor JOHN BARKER, Newcastle-on-Tyne.

Mr. Chairman, ladies and gentlemen, I have the honour of appearing in place of Dr. Kerr, medical officer of health for Newcastle. No matter with what amount of elasticity we enter into any branch of discussion on the question of child welfare we are always brought back on every occasion to the subject we are now discussing—the problem as affected by home conditions. I am sorry that Dr. Kerr with his professional knowledge is not here now to put his point of view before the Conference. Perhaps you will permit me on his behalf to make an explanation on a point which has evidently been misunderstood by the delegates with reference to a remark he made this morning with regard to voluntary workers. He asked me to make an explanation on the point. Having worked as a colleague for many years with Dr. Kerr, I do know that nobody appreciates more than he does the actual services rendered by those voluntary workers in Newcastle. What he meant to convey was this, and I think you will agree with him, that the subject is such an important one and the necessity for preserving the lives of the children is so great that we cannot afford to leave it entirely to voluntary

assistance. He was trying to advocate that the responsibility must rest naturally and primarily with the local governing body. While I have no professional knowledge in this matter, I can claim to have had a wee bit of experience as the son of a working man and in poor circumstances at that. I ought to say—perhaps you will excuse me introducing this personal point—that I am one of a family of eight. Thank God, they are all living to-day. My youngest sister is thirty-two years of age. The income in our house never exceeded from my father alone 30s. per week, but we did not live in the slums—we lived out in the country. We were brought up in a cottage in the country surrounded by a garden, in which we could produce a certain amount of the vegetables we required, and so forth. Another thing is this, I had the best parents who ever lived. Their lives were one continual sacrifice for each of the boys and girls, and, unfortunately, just when my father and mother reached the age when we might have given some assistance to them, or, rather, when we reached the age when we might have done good to them in return for what they had done for us, we lost both our father and mother, who, as I said before, made their lives one constant sacrifice for the whole of us. Now, Mr. Chairman, I wish to divide this subject under three headings, and before doing so I would like to say that the subject must be shorn of all trimming. We must get down to the naked truth of it if we can, and my experience is that avoidable infantile mortality is largely due to three things. In the first place, it is due to the carelessness of mothers and fathers whose income is sufficiently adequate to provide food and clothes and a proper home; in the second place, it is due to those cases where the income is totally inadequate to supply the necessary food and clothes and and a good home; and in the third place, it is due to the powers allowed by the municipalities to private builders to build brick boxes with slate lids on them and call them houses. (Applause.) I do feel with regard to the first position that compulsion is absolutely necessary. Where a father and mother neglect their children—wilfully neglect them—when they withhold from them what they have got the means to provide for them, they ought to be looked upon as being guilty morally of murder. (Applause.) In the case of the municipality which allows the children of those people whose income is inadequate to die that municipality is, in my opinion, morally guilty of murder. (Applause.) Take, for instance, my own city of Newcastle-on-Tyne. The ward which I represent, where we have those single-roomed and double-roomed dwelling-houses, where pretty little human flowers

are crushed into weeds before they can develop, the death-rate per 1000 has reached 176. In the adjoining ward, where the conditions of the fathers and mothers are better—where the housing conditions are better—where the majority of the dwelling-houses are self-contained houses of three or four apartments—the death-rate had not reached above 60 or 70 per 1000. If you will not put the saying into practice what use is the teaching of Paul, "Faith, hope, and charity"? Where does charity come in? Personally I think that if in my ward the death-rate is 60 or 70 per 1000 greater amongst children under twelve months as compared with the ward next to it my children are being murdered. So long as we know it to be practicable it is up to us, in my opinion, to do all we can to save those lives. It has been said this morning, and I believe it is true, that our boys at the Front are being killed at the rate of nine or ten per hour, while our children die at the rate of twelve per hour, but there is something more distressing than that to me. I believe that the potential life that is destroyed before it is born is more than both those figures put together. I believe that if this Conference is going to do anything at all it is going to open the eyes of the people in this country to the great importance of this work. It is no use nipping off weeds at the top. We must now go down to the root to give our pretty human flowers a chance to develop. In conclusion, I say that if we want to erect a monument to those brave boys of ours who have fallen on the battlefield let it be by raising the standard of human life and improving the manhood and womanhood of future generations. (Applause.)

By Mr. J. R. MOTION, Inspector and Clerk, Glasgow Parish Council.

Mr. Chairman, ladies and gentlemen, I have not much to say, as I would rather curtail the remarks pertaining to the point. But I wish to protest against the language used against the "poor law alms" which we give to poor people, and your own observations thereon, sir. I wish to deny that *in toto*. There is not a better class of people in the country than those under the care of Glasgow Parish Council at this moment. The poor law authorities have risen to the occasion in the manner of treatment of the tubercular child. We are in constant contact with Dr. Chalmers and his officials, and together we have taken the child under our care, and substantial aliment is now allowed even to the extent of afford-

ing sufficient means to enable them to hire an extra room so as to get the patient a bed to himself or herself. We even allow suitable clothing, and in numerous cases we send the child or children to the country. Our great desire is to maintain the home and the family life. This cannot be done by having the dependants placed outwith the influence of a good mother. I need not refer to the actual sum allowed, but we say and maintain that it is sufficient, and is approved by the medical officer of health, whose assistant consults with us in relation thereto, and before the money is fixed. (Applause.)

DISCUSSION.

The Rev. Mr. GIBB (Glasgow Parish Council)—Mr. Chairman, ladies and gentlemen, I do not wish to intervene at any length except to emphasise the caveat which Mr. Motion has entered regarding a statement made, I think, by Mrs. Leslie Mackenzie, to the effect that the Parish Council allowances for poor families are insufficient. Well, that is a subject upon which there has been a good deal of difference of opinion; but I can assure you that all the members of Glasgow Parish Council, for which I speak, are absolutely alive to the necessity of two things, namely, first of all that an adequate allowance be given, and that we insist in every case that a mother's first duty is not to work outside, but to look after her family at home. (Applause.) I would suggest to Mrs. Leslie Mackenzie, and those who are inclined to think with her in this respect, that the root evil is not in the allowance scale of the Parish Council but in the insufficiency of wages. It is an economic question, and you are beginning at the wrong end, and taking the wrong path when you suggest increasing the dole of the Parish Council, because when you raise it above a certain point you offer an inducement to people to come in under the shield of poverty and pauperism and claim allowances from the city. In these circumstances I have much pleasure in supporting the caveat entered by Mr. Motion.

Dr. CHALMERS—It has been suggested that Mrs. Leslie Mackenzie's remarks applied only to the allowances given to widows with children.

The CHAIRMAN—Perhaps I might give you my experience of a Parish Council, partly in the city and partly outside the city, with which I was connected. That parish at that time could not give beyond 10s. to a widow with eight children. I pressed and pressed, but I was told that that was the maximum allowed by the Local Government Board. That was stated to us by our then inspector; we could not go beyond that 10s. But if there is no maximum now, then it still lies with the members of the Parish Council to see that the amount given is adequate.

Mr. ELDER (chairman of Govan Parish Council)—I can bear out the intent in the minds of every member of the Parish Council to grant to every widow or woman person requiring relief the utmost in their power. While I was seated in our inspector's office two mornings ago the 'phone rang. The inspector answered the 'phone. He said to me, "That is the Local Government Board." I said, "What do they want?" He said, "They want to know why it is that our expenditure on the outdoor poor last year was so heavy when the numbers on your roll were very much decreased." The inspector replied, "The reason is that we are giving augmented allowances to all the widows and orphans on our outdoor roll," showing

that the Parish Council are willing to give what they consider adequate allowances. And I think if you want to get at the goal you are aiming at you must start with the Local Government Board and see that they extend the powers that the Parish Councils desire to wield, and do not hesitate to put their hands in the public purse to help widows and orphans.

Dr. RUSSELL (Glasgow)—Mr. Chairman, ladies and gentlemen, as an ex-member of Glasgow Parish Council for six years and a member of the Parochial Board for a long period, I can speak in regard to this point. I am sorry to differ entirely from the two previous speakers with regard to Glasgow Parish Council. I can give you two cases. They are not widows, but for the time being they are unable to work, and one of the husbands is unable up to the present time to do any work. In the first case the husband was suffering from chronic bronchitis, incurable, and only got about 12s. per month for twelve weeks. That woman had to go out working, and she, in consequence of the action of the officials getting that allowance stopped entirely, became tuberculous. Only after an appeal to the Local Government Board did I manage to get that person given relief. The Local Government Board will support you in giving all necessary relief. With regard to the other case, the man was unable to work with an injured spine. The allowance was 17s. 6d. There was 15s. going into the house, and I myself gave 2s. 6d. to make up the sum of 17s. 6d. That was appealed against and was stopped by an official on your platform. That shows that the allowance is not always adequate, although the poor law says that it must be adequate to keep the person in health until they are able to earn a living wage.

VI.—THE ILLEGITIMATE CHILD AND ITS CARE.

THE ILLEGITIMATE CHILD AND ITS CARE.

By Mr. JAS. R. MOTION, Inspector and Clerk, Glasgow Parish Council.

IN introducing this subject to the Congress, I propose to confine myself to the experience of the Glasgow Parish Council in dealing with unmarried mothers and the care exercised in the supervision of their infants.

Under the Children Act, 1908, the Parish Council requires to be notified of all children handed over to guardians who receive a premium or other monetary allowance. It is thereafter the duty of the infant protection visitor appointed by the Parish Council to satisfy herself that the infants are being properly maintained. Out of 242 children so reported during the past half-year, of whom 196 were illegitimate and 46 lawful, only 19 were considered doubtful and unsatisfactory, and the infants removed.

The procedure under the Children Act, however, is scarcely relevant to the subject immediately before us, although doubtless

it has the greatest importance towards the care and treatment of all infants alike. I therefore prefer to explain more fully what is done by the Parish Council and its officials when young unmarried women make application for parish relief on account of their pregnancy. In the year 1910 a new departure was instituted in the care and oversight of such cases, and since then, whenever an applicant of this class appears, she is forthwith directed to one of our female officers, who notes the necessary particulars, and, after consultation with the district inspector, the applicant is sent to the poorhouse or hospital as the circumstances demand. If the woman is of habit and repute, or if the confinement is not expected very soon, she is sent to the poorhouse, but if the case is decent or urgent, it is admitted to hospital at once.

For official purposes we require the age of the applicant, her birthplace, and parentage, also residences, with the name and address (where possible) of the putative father, and other more delicate and essential details to complete our record. Where possible, we get into touch with the father, so that he may be induced to give all the reparation in his power, but, as paternity cannot usually be proved, he rarely can be brought to book under any process of law.

After the birth of the infant, when the mother proposes to leave the institution, she is conveyed to the offices of the Parish Council, where she is again interviewed by a female official, who advises the young mother regarding the care and treatment of the child, and also as to her future behaviour. In not a few instances this official accompanies the mother and infant to the address whither they are going, to see that they are left under proper care and supervision. Notice is also given to the medical officer of health in order that he may include the case for visitation by his own nurses or by a lady on behalf of the Infant Health Visitors' Association. When thought necessary, the case is also retained in order to afford further assistance by sending the child for hospital treatment if so advised.

The following are the instructions given to the Parish Council staff in dealing with these cases, viz. :—

> In dealing with applications from women who are pregnant, the application clerk must hand over these cases instantly to one or other of the female officers, who will take the applicant aside and ascertain all the particulars bearing upon the case, and afterwards advise the inspector of the district in which the

applicant is domiciled as to which hospital the case should be sent.

Instructions are to be given to the governor of the poorhouse, or the medical superintendent of the Eastern District Hospital, as the case may be, to see that these women and their infants, and other dependants, if any, upon discharge, are brought to the office (73 John Street) for the purpose of being properly disposed of in relation to the children and the maintenance of the mother herself.

Each applicant should then be carefully interrogated as to her future, so that she may be advised and assisted for the sake of herself and her children, and the name and address be reported to the medical officer of health for attention by his infant health visitors.

(Signed) Jas. R. Motion,
Inspector and Clerk.

15th September, 1916.

I have here a return of 50 cases of the nature referred to, and an analysis of the information given shows that 1 belongs to Italy, 2 to England, 7 to Ireland, and 11 come from various districts of Scotland. Of the latter 1 came from each of the following places:—Uist, Nairn, Falkirk, Coatbridge, Kilmarnock, Airdrie, Slamannan, and Argyllshire.

The ages are from eighteen to thirty-six. Of the 50 cases only three claimed the maternity benefit of the National Health Insurance, the others not being insured, chiefly because they were not in settled employment.

All of these mothers, upon leaving the hospital, were taken wherever they wanted to go and left there, after the official was satisfied that they were in proper care, generally with near relatives. Out of this number there have been no after-applications up till now for admission to hospital of either mother or child, with two exceptions, one who had no place to go, and another where the infant required medical treatment.

Two were in hospital for five months before the child was born, one for four months, two for three months, seven for one month, one for one day.

One was admitted on the day on which the child was born; she had first applied on 19th August, 1916, when only three months pregnant, and was sent to hospital, where she remained only three days. She again turned up on 24th October, when the child was born.

One applied on 12th June, 1916, and was sent to the Lock Hospital, which she left on 16th August, cured. She returned again to us, and was in Barnhill Hospital from 25th to 30th October, 1916. On 22nd December, 1916, she again applied, and was sent to Duke Street Hospital, certified "Pregnancy and venereal." She is still in hospital.

One woman was admitted to hospital on 29th November, 1916, and child born on 23rd December. She was the widow of a soldier who died in France on 31st January, 1916.

One of the girls (A. H., twenty-four years of age) first came to us in November, 1912, with her first child, which died in Keith. In October, 1916, she was back again with another child, but she left to go to her mother.

Out of the seven girls from Ireland, one was here only five months; another had been one and a half years over, and came to Glasgow in August, 1916, when she discovered her condition. Another came from Ireland in February, 1916.

The following are the putative fathers of these children:—An actor, country draper, thirteen were soldiers, a boilermaker, three were in the Navy, a Roumanian seaman, six were married men, two were colliers, one a paramour who did six months for living off the woman's earnings, an engineer, a riveter, a cabdriver, a commercial traveller, a police constable, chemist's manager in Ireland, an Irish farmer, a loafer, a tramway man, and a lodger in the girl's home.

By the courtesy of Dr. Chalmers, I have seen his record of births for the past year, which number in all 27,347; of these 1884 are illegitimate, the percentage to the whole being equal to 6·9 per annum, which appears very low.

From this imperfect sketch of our procedure, it will be seen that the influence we seek to exert upon the young and inexperienced mother (often led astray through bad companionship or evil example) is of the best kind, and our experience, so far, encourages us to persevere with even greater zeal in the future.

By Rev. BUCHANAN BLAKE, B.D., Scottish Christian Social Union.

The pressing matter of urgency now by common consent is prevention. Society, led by splendid philanthropists, has done much for the victims of wrong and evil doing, but its business is not now alone

or chiefly their care and alleviation, but the bringing to an end of the causes of the human wreckage. The cry of Marguerite in "Faust" and of George Eliot's heroine in "Adam Bede" is being heard at length, and it is felt that something should be done to prevent a condition of things in which shame and obloquy in many ways attaches to the illegitimate child, through no fault of his, and all the suffering often throughout the whole of life falls on the woman who has been deceived and betrayed. The child, by a strange misuse of terms, has been called the natural child, as if the child of lawful wedlock were unnatural. Only too often has law and nature been at war, as we have man-made law ignoring vital facts of life. How sad to see judges sentencing the mother for her treatment of her child, while no effort is made to bring the father to book. He is the blameworthy party, and should be held by law responsible for the maintenance of his child and the support of the child and mother as long as necessary. In Scotland we legitimise the child if marriage takes place between the parents. This is not done in England, and here is a glaring defect of English law. The evil influence of morganatic relations in high life has affected all life, and men have been set free by law from their natural and legal obligations. But the facts of life are stronger than law, as Shakespeare shows us in "King Lear," where the natural son has his claims voiced, "As to the legitimate, fine word legitimate!"

It is to be noted that Scotland has a bad record as to illegitimacy in being 7 per cent. as against England's 4·3 per cent. The cause of it must be sought in the fact that men are not sufficiently penalised in this matter. Man by man-made law is protected from the consequences of his action for fear of blackmail; but is there justification in one in ten cases for this fear? Ignorance prevails, and this has to be dispelled as knowledge takes its place. Man has to be recognised as the protector of woman, not in some outward way of so-called good manners, but in conscience and with a sense of responsibility.

At present the law is cruel to the woman, and lets off the man. Some trifling alimony is awarded by the Courts after the poor woman has to publish further her betrayal. Women who have to bear the burden have to resort to all sorts of devices throughout life to conceal the fact where the promised marriage does not take place.

What, in view of recent disclosures by the Royal Commission and facts well known to all doctors for long, but unfortunately kept secret, is now required is a very much higher vision of the responsi-

bilities of the relations of sex, less frivolity, less smoking-room thoughts about life, and the bringing of all these relations under the control of the great principle of communal well-being, which is the good of mankind and the glory of God. The basis of the law ought not to be the individual and his rights merely, but the interests of the social whole, and if men and women by their self-indulgent lives bring suffering upon themselves and involve others in the consequence of their wrongdoing they, the wrongdoers, and not society, should have to pay the bill.

But as things are at present everything should be done to make adequate provision for the illegitimate child. If the father fails in his duty and the mother is unable or unfit to provide for the child that child should become the adopted child of the State, and placed under suitable guardianship that so he may become a worthy citizen, as so many of Mr. Motion's children have become.

By Miss LYALL, Almoner, Royal Maternity Hospital, Glasgow.

THE problem is not new, but because of its difficulties the community as a whole has been content to shut its eyes to it; like the unwanted little ones, it has been pushed out of sight; but a growing sense of civic responsibility is opening our eyes to the evils around us; and once open we cannot plead ignorance and shut them again. It is also a very complicated problem, for one cannot consider the babies only without their mothers; we must aim at keeping mother and child together or in close contact as long as possible, and this cannot be done without help from outside, material and moral.

What course is open to the mothers at the present time? In the past months I have dealt with about 200 unmarried mothers, and the majority left the hospital with living babies. Of these girls seventy were living at their own homes or with relatives, sixty-five were in lodgings, forty-one came from maternity homes. When I asked them what were their plans for the baby the greater number have said that they must get the baby adopted or find a foster-mother; even those living at home often are forced by family pressure to give up their babies. As a rule, to find a foster-mother they have to advertise, and here in Scotland, before a newspaper will take an advertisement, the girl must get a "line" from the Parish, and the Parish is willing to take up the references of any who reply. To this extent therefore the child is safeguarded, and here in Glasgow is

brought under the system of inspection by the Parish and the Health Authorities, and much good work these two authorities are doing. But it is getting increasingly difficult to find foster-mothers, and often a girl has to advertise five or six times and wait several weeks before one is found, and unless she is able to live at home she has to depend on the kindness of friends, and will have to repay them when she gets into work, thus accumulating extra financial burdens. If she wants to keep in touch with the baby she will have to pay 7s. a week for its keep, and find it clothes and all other extras. Just now some girls can earn enough to do this, but for the majority, and especially girls in service, this weekly payment is practically an impossibility, as it leaves them with no margin for necessaries for themselves and nothing for pleasures. If they wish to keep straight there is nothing before them but a drab existence of toil, and one cannot wonder at their not being willing to face the prospect. Like Cain, if they could express their feelings they would say, "My punishment is greater than I can bear." As for the girls in the maternity homes the problem is ultimately much the same, except that they have more time in which to regain their health and make their plans for the baby, and, if there is any chance of getting the father of the child to pay towards its maintenance, they are helped with the necessary legal formalities. The latest Affiliation Order Act of July, 1914, has improved matters in this respect to a certain extent, but I have seen it stated that in only 3·03 per cent. of cases does the father make any payment for the child.

It is admitted that the burden of maintaining the child falls almost entirely on the mother, while the force of circumstances, family opinion, and public opinion tend to part her from her child. People justify themselves in this view, pleading that things must not be made too easy, and these girls must not be encouraged, but if a girl wishes to bring up her baby herself it will not be easy, however much help she may get from outside.

Now, it is obvious that the community has not been very successful in its treatment of the problem so far. We have acquiesced in mother and child being parted; the baby goes through many vicissitudes of changing foster-mothers, which must make it very difficult for the health visitors and inspectors to keep in touch, and it is known that the death-rate is highest among illegitimate babies. The mother frequently drifts from one occupation to another, with every temptation to give up the struggle of caring for her child, and often with no one to encourage her or to whom she can confide her

difficulties. We want the babies to live, not only to live, but to grow up healthy in *mind* as well as body; we want the girls to have a chance of gaining strength of character and will, and I am convinced we can only achieve this by making it possible for the girls to look after their babies themselves; give them the opportunity of mothering them, and the mother instinct will assert itself in the majority of cases.

To carry this out will not be easy, and it will cost money. We shall want homes; they must be small homes with accommodation for not more than sixteen to twenty girls. In these the girls could live with their babies, and go out to their daily work, whatever it might be, having their babies with them at night and learning how to look after them under good conditions. One or two of such homes are in existence in other parts of Great Britain, and are doing well, but I do not know of any in Scotland. In another one the girls are taught upholstery and gardening. The Secretary of this one writes, "The girls are happy and interested, and three are staying on for another year, and are now earning their keep." For such homes, of course, is needed just the right person to superintend it, and in choice of occupation I think better results would be obtained by providing something different to the usual housework and laundry work. Such homes, of course, would only meet the needs of a comparatively small number of girls, but I think it ought not to be beyond the bounds of possibility to devise some scheme by which every girl with an illegitimate child was put in touch with some one who would act as guardian and friend, some one to whom the girl could turn in any difficulty, and who would watch over the child's health and upbringing till it was sixteen or eighteen years old at least.

To organise this it would be necessary to have a Central Committee, one each for the large towns, and perhaps the county might be the unit for country areas. One hesitates to suggest more committees and societies in these busy days, but the problem *is* an urgent one, and it is not going to be settled without a great deal of study and experiment.

There are, of course, many other aspects of the question that I have not touched on, nor can one attempt in the short time available to go into the predisposing causes, conditions of work, housing, temperament, youth, thoughtlessness, and so on; neither have I mentioned the problem of the feeble-minded mothers; there are already

provisions by Act of Parliament which might often be more fully used to deal with these.

I have brought forward these few suggestions in the hope that they may form a useful basis for discussion, and that out of this Conference there may emerge some practicable scheme on which we may start working.

The proceedings terminated with a hearty vote of thanks to the Lord Provost of Glasgow and the Corporation of Glasgow, on the motion of Mr. Alderman Broadbent, seconded by Mr. D. W. Kemp.
